FOUNDED IN 1856

RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

FREIGHT TRAFFIC ISSUE

OCTOBER 7, 1950

The most profitable investment a railroad can make is the Best Locomotive it can buy

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS • LA GRANGE, ILLINOIS – HOME OF THE DIESEL LOCOMOTIVE

In Canada: GENERAL MOTORS DIESEL LTD., LONDON, ONTARIO

ENERAL OTORS
LOCO OTIVES

Here's how to eliminate "Frozen Joints"

1. Use the oxy-acetylene flame to loosen mill scale, and drive out moisture from around the joint area.

2. Next wire-brush the area to remove the loose scale.

3. Then paint the area with a good lubricant.

Now, these clean joint areas—free of troublesome mill scale—will discourage joint bars from "freezing to the rail" and will require less maintenance.

This operation takes a little over a minute to do, and will fit right into your present rail-laying program. Ask OXWELD for more information about how you can use flame-cleaning to prevent joint bars from freezing to rail ends when you lay new rail.

OXWELD RAILROAD SERVICE

THE OXWELD RAILROAD SERVICE COMPANY
Unit of Union Carbide and Carbon Corporation

UCC

Carbide and Carbon Building Chicago and New York

In Canada:
Canadian Railroad Service Company, Limited, Toronto

SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

Published weekly by Simmons-Boardman Publishing Corporation, Orange, Conn. Executive Offices, 30 Church Street, New York 7, N. Y. Entered as second class matter at Orange, Conn., under the act of March 3, 1879. Subscription price $6.00 for one year, U. S. and Canada. Single copies, 50 cents each. Vol. 129, No. 15.

QUALITY

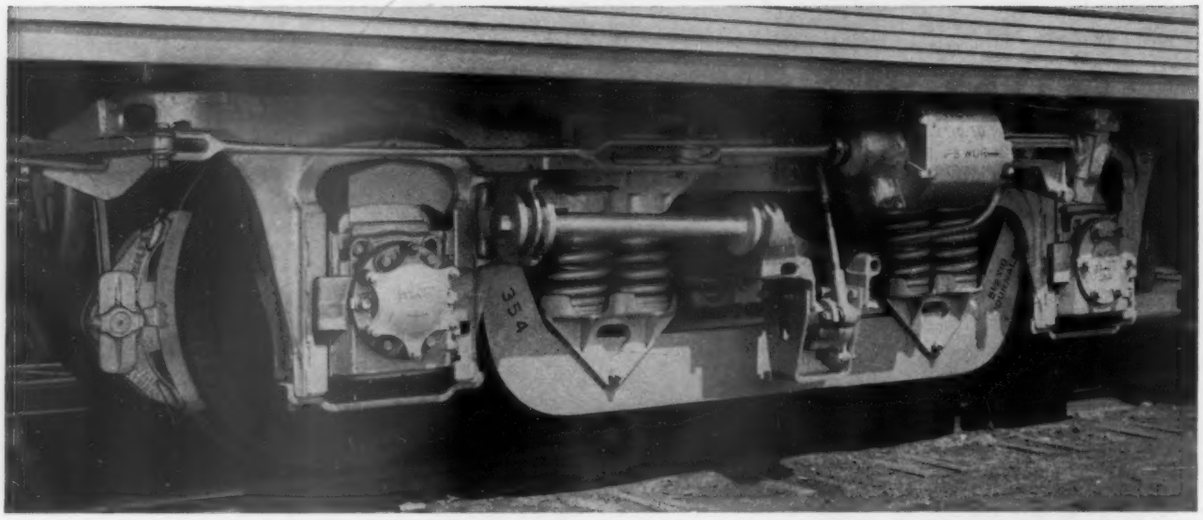
WITH

Outstanding

PERFORMANCE

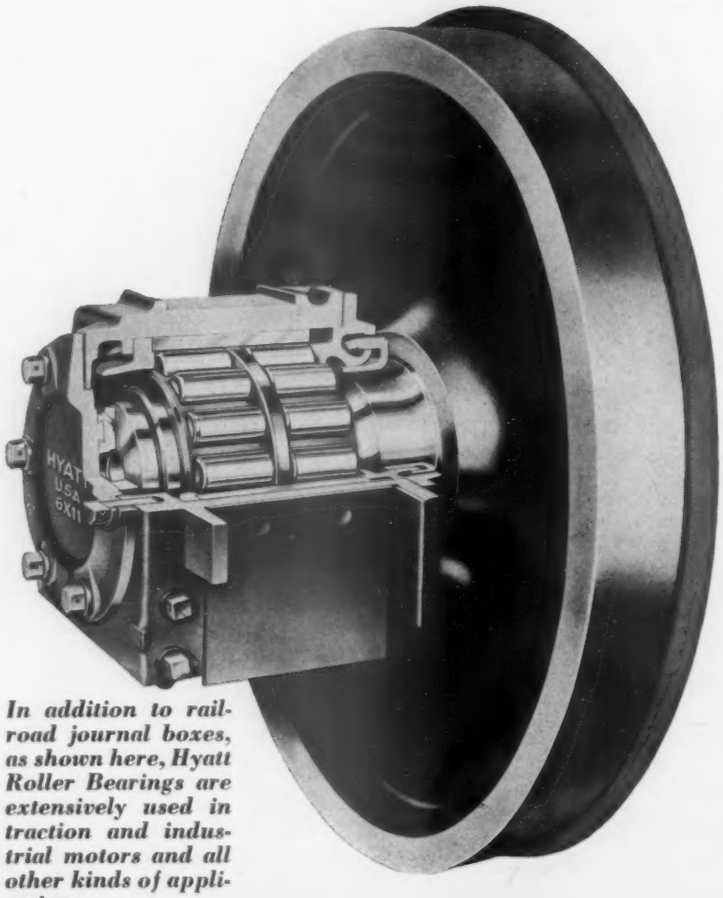
CLASS A-22-XL

W. H. MINER INC. - CHICAGO



One of the Hyatt-Equipped Trucks on this special train.

The Part HYATTS Play



In addition to railroad journal boxes, as shown here, Hyatt Roller Bearings are extensively used in traction and industrial motors and all other kinds of applications.

On the General Electric "More Power to America Special" you will find Hyatt Railroad Journal Boxes under some of the exhibit cars, for a modern train would be incomplete without its quota of these dependable bearings.

Hyatt Journal Boxes, illustrated in cutaway view, are made up with two husky straight roller assemblies for greater radial capacity and long trouble-free life—are easily removable to simplify wheel work — interchangeable to reduce spare parts inventories —and completely accessible for cleaning and inspection.

It's such desirable features as these, plus their free lateral movement to reduce flange wear and provide easier riding which have earned their widespread usage on passenger cars and diesel locomotives, everywhere. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.

HYATT ROLLER BEARING JOURNAL BOXES

Vol. 129, No. 15 October 7, 1950

RAILWAY AGE

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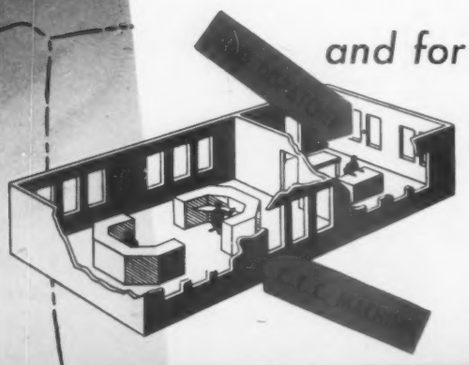
Cut Costs, Step-Up Efficiency with "UNION" C.T.C.

Can Extra 5023 West get out of the yard ahead of 19? How far can he go for 14? Will 409 be in from the branch in time for Extra 3041 East to pick up the cut of cars on his head end? How long will it take to ice the cars on 5023 West?

Answers to all the questions involved in division-wide operations usually are known only at division headquarters . . . yet they have an important bearing on operating efficiency and costs.

With your "Union" C.T.C. machine located at division headquarters . . . those responsible for getting trains over the road can arrange meets and passes on a moment's notice . . . and since they are constantly informed of train location and track availability, maximum advantage can be taken of "breaks" as they occur. Therefore, for lowered operating costs . . .



and for maximum efficiency . . .

Concentrate Control at Division Headquarters

UNION SWITCH & SIGNAL COMPANY
SWISSVALE, PENNSYLVANIA

WEEK AT A GLANCE

DEFENSE TRANSPORT ADMINISTRATION: To administer priorities and allocations in domestic rail, highway and inland-waterway transportation, a Defense Transport Administration was established under I.C.C. jurisdiction on October 4. No personnel appointments have yet been made, but details available up to press time of the new agency's organization and functions are reported in the News.

MOVING UP: Net income of Class I railroads for August, at $96 million, was almost two and one-half times as large as the $39-million net reported for August, 1949. For 1950's first eight months, net income was almost one and one-half times that of the same period last year—$366 million against $242 million. Other significant features of the report released this week by the A.A.R. are that the improvement covered all districts; and that expenses for the eight months were cut 3.3 per cent while gross revenues were increasing 1.3 per cent. Detailed figures are given in the News section.

GOING TO BAT: The railroads' car building program, Interstate Commerce Commissioner James K. Knudson told the new National Production Authority last week, is "the only vital aspect of the defense program that is fully ready to go—today." And so he has gone to bat before the N.P.A. to secure approval for a temporary voluntary program of allocating for freight car building and repair enough steel to provide for construction of at least 10,000 new cars per month. Mr. Knudson, whose statement is summarized in the News pages, suggested that the car production goal might ultimately be increased to a substantially larger figure.

FREIGHT-TRAFFIC VIGNETTES: C.&N.W. gives its patrons better pick-up and delivery service with railroad-controlled truck fleets (page 50).—P.R.R. customers get higher prices for fruit following the railroad's installation at New York of a new system to keep freight cool while on display (page 52).—L.&N. traffic men study solicitation, selling and service in program designed to meet the special needs of traffic salesmen (page 56).—S.P. cuts damage and costs in l.c.l. handling through use of "birdcage" containers (page 57).—Supervisory agents on Seaboard study ways and means to improve freight handling (page 60).

ON THE NEWS FRONT: Summary of September orders for 473 Diesel locomotives, 30,840 freight cars, and 26 passenger-train cars, to cost over $230 million.—Pullman-Standard creates new ballaster division.—Two supply associations elect new officers.—Last week's car loadings one-third greater than last year.—How 1948 freight traffic shared in payment of overhead costs.—Justice Department intervenes in express case before I.C.C.—Pan American Railway Congress to meet at Mexico City.—I.C.C. reopens truck leasing case.—Yardmasters accept wage-hour agreement on basis of "Steelman formula," previously used in settling similar demands by switchmen.

TRANSPORTATION TEAM-WORK: "The vital importance of the most efficient performance possible by the railroads stands as a challenge to every employee or person connected with the industry." So C. R. Megee, vice-chairman of the A.A.R.'s Car Service Division, told the Car Foremen's Association of Chicago in a September 11 paper —abstracted on pages 53-55—in which he made some specific suggestions as to how the car department of a railroad can help to bring about the best possible utilization of the presently available supply of freight cars.

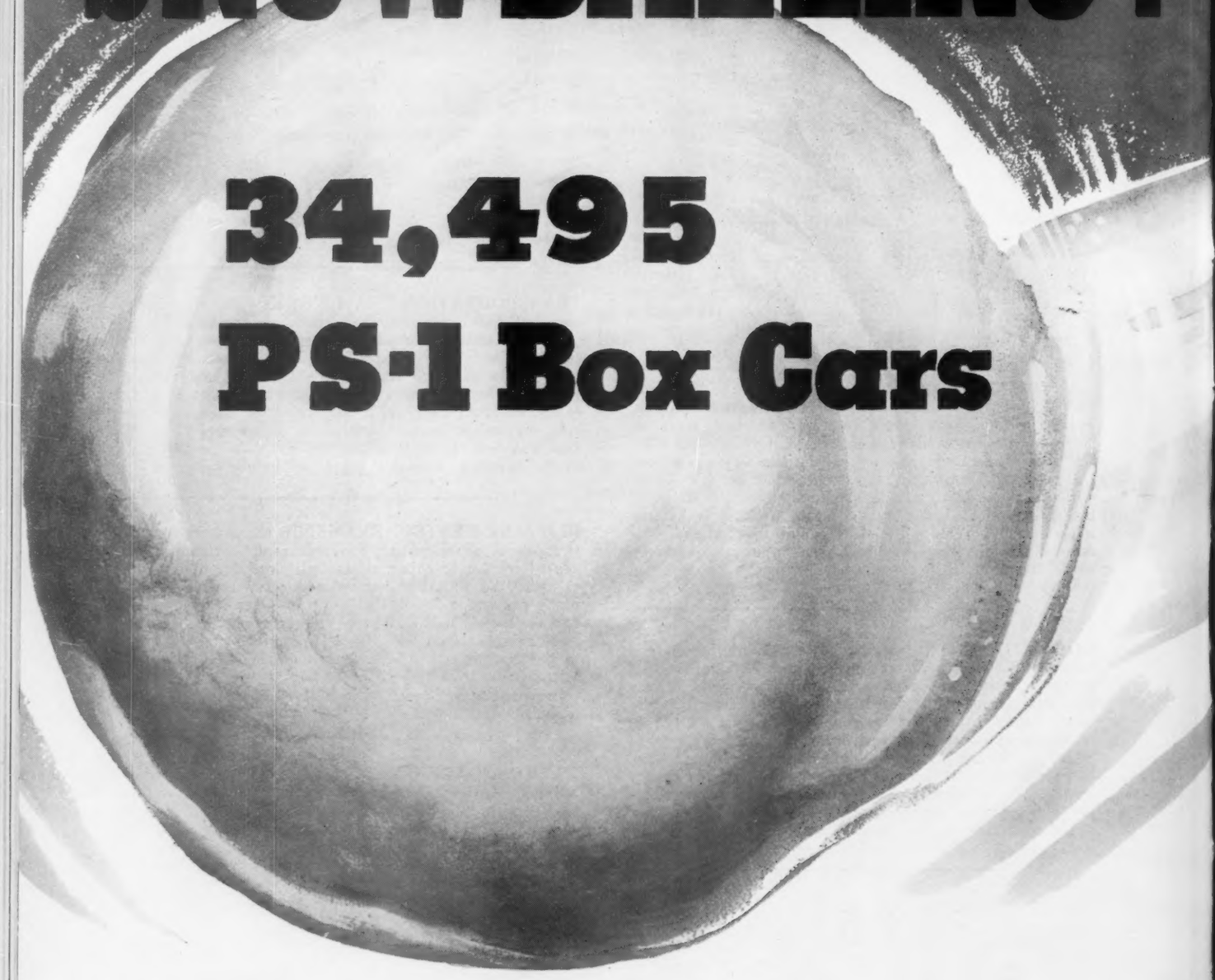
BLIZZARD-BEATING BEAMS: To eliminate serious interruptions of telephone and telegraph communications, caused by the breaking of line wires in sleet storms, the C.R.I.&P. has installed beamed radio (microwaves) to replace conventional pole-line wires between Norton, Kan., and Goodland, 106 mi. The new installation, which is now undergoing its final tests, is both described and illustrated in the feature article which starts on page 71. This Rock Island installation is believed to be first real use of microwave communication on any railroad—but it isn't likely to be the last.

NATIONAL AGENCY FOR L.C.L.? Most of the 13 Shippers Advisory Boards, led by the Trans-Missouri-Kansas group, appear to be in substantial agreement that the railroads should give serious study to creation of a national agency for the handling of l.c.l. traffic. The proposal, like almost any other idea of major importance, has both pros and cons—some of which are outlined in the survey of the single agency idea which is the theme of this week's leading editorial.

"QUANTITY" RATES: Since 1939, minimum rate scales based on lowest-cost carrier operations, and on quantity loadings, have been in effect, intrastate, in California. They have enabled the railroads in that state to compete, rate-wise, with highway transport, but without, apparently, exerting any deeply injurious effect on over-the-road trucking. A significant characteristic of these rates is the provision of charges varying in inverse proportion to weight of shipment—in other words, they involve the principle of volume, intermediate or quantity rates, narrowing the gap between regular l.c.l. and carload rates. For a description and analysis of these California quantity rates, see page 62.

B. & B. MEETING: Beginning on page 67 is a detailed report of proceedings at the recent Chicago convention of the American Railway Bridge & Building Association, which supplements last week's account of the concurrent sessions of the Roadmasters' and Maintenance of Way Association.

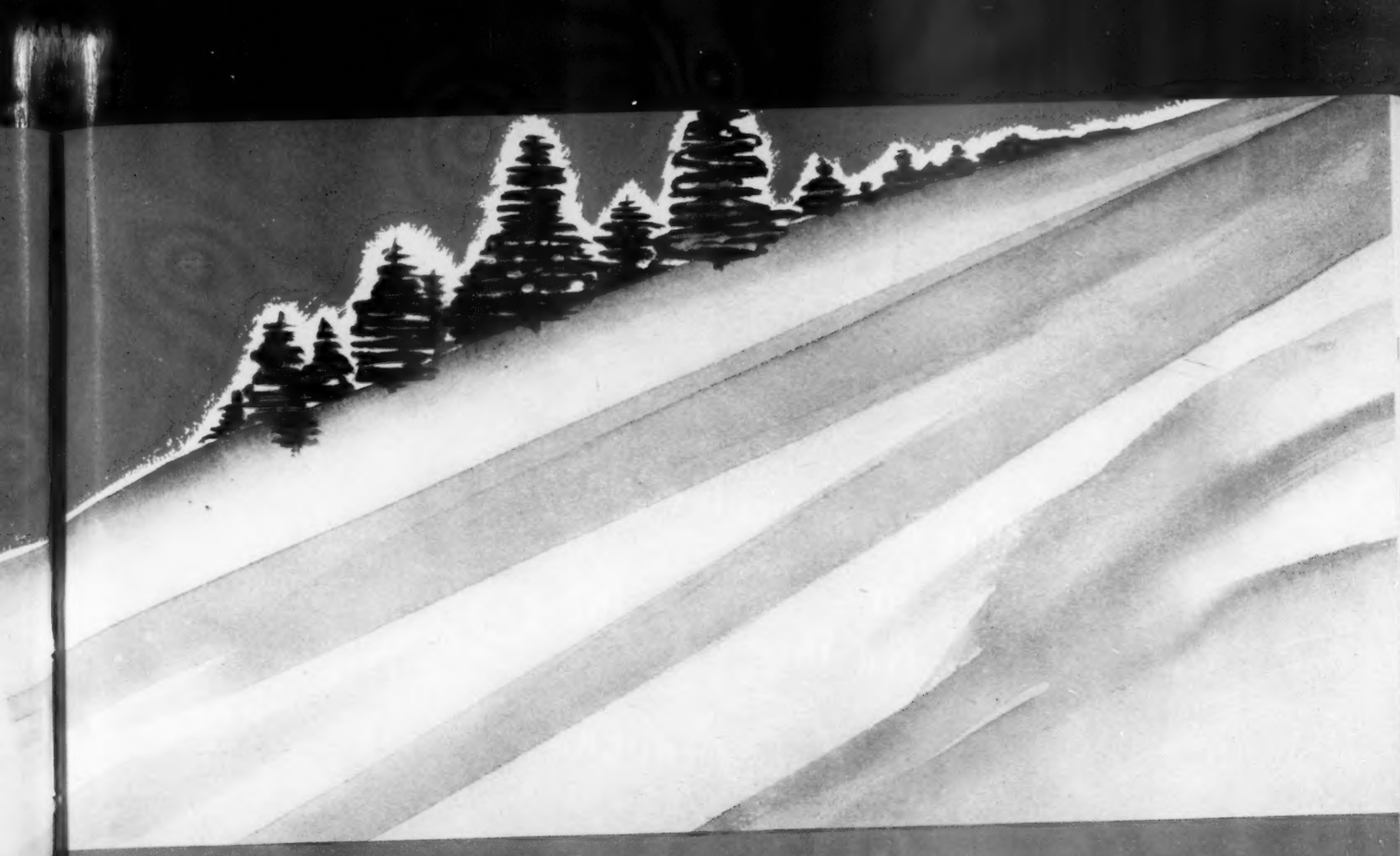
SNOWBALLING!

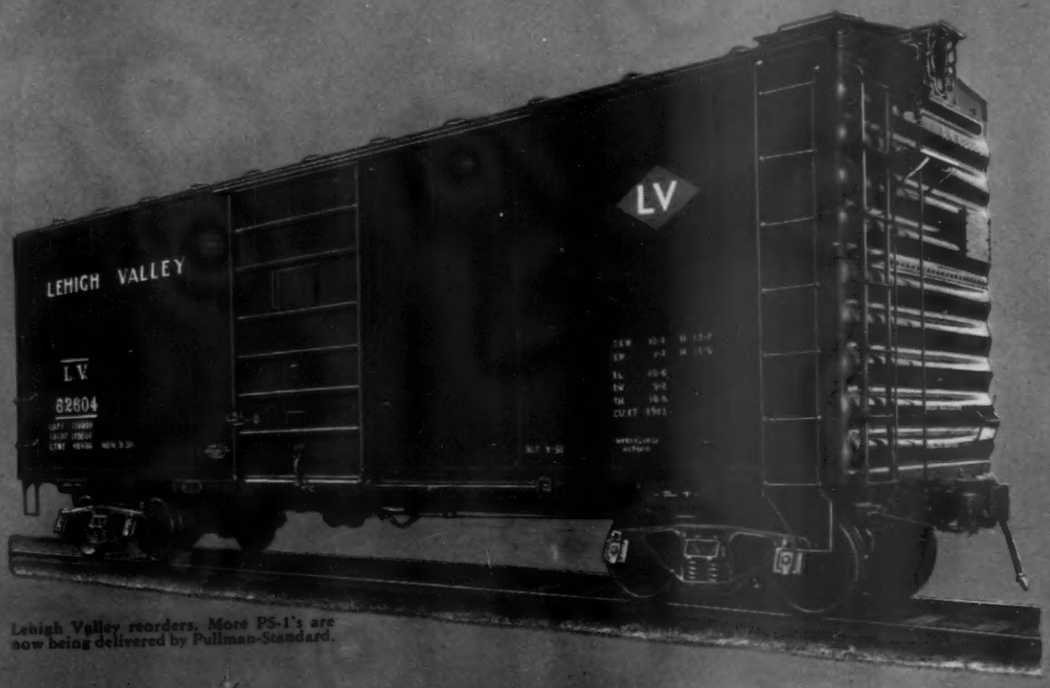


34,495 PS-1 Box Cars

The first PS-1 box cars were ordered on Oct. 7, 1946—by the Lehigh Valley, which has *more* on the way right now. Since then, in just four years, the total of PS-1's delivered or on order has snowballed to 34,495 (as of Sept. 15, 1950).

These cars have been bought by *thirty-six* different railroads. An even more important endorsement of the PS-1 as a quality product is the large number of these customers who have placed *repeat* orders...some as many as *three and four* times!





Lehigh Valley reorders. More PS-1's are now being delivered by Pullman-Standard.

PS-1...a quality box car efficiently produced

Continuous assembly-line production, and many years of experience, are all-important in making sturdy, dependable PS-1 box cars economically available. But at Pullman-Standard, *standardization* never holds back *progress.* Dozens of improvements have been adopted since the first PS-1 rolled off the production line.

Pullman-Standard

CAR MANUFACTURING COMPANY

CHICAGO • NEW YORK • CLEVELAND • WASHINGTON, D. C. • PITTSBURGH
BIRMINGHAM • SAN FRANCISCO

STEEL CASTINGS MANUFACTURER

SCULLIN STEEL CO.

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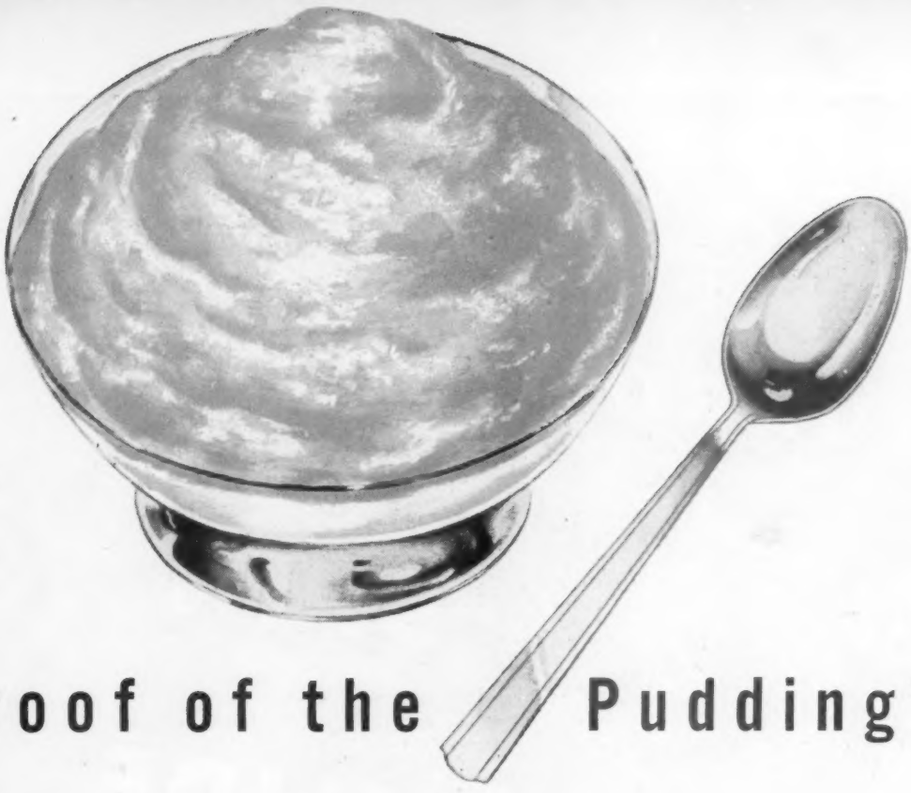
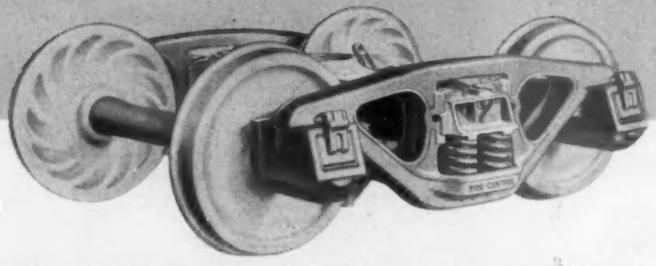


"Proof of the Pudding"

It's not what *goes into* Ride-Control Trucks, but what *you* get out of them, that counts—smooth operation, freedom from maintenance... protection of rolling stock, lading, *and* roadbed.

Ride-Control Trucks wouldn't now be outselling *all other* freight trucks combined—*two to one*—if they didn't deliver cost-cutting performance that earns profits for Ride-Control users.

A-S-F *Ride-Control*® TRUCK



CONSTANT FRICTION CONTROL • LONG SPRING TRAVEL

AMERICAN STEEL FOUNDRIES

MINT MARK OF ◯ FINE CAST STEEL

GUARD YOUR DIESELS
Wheel SPIN
Wheel SLIDE
Wheel LOCK-UP

AGAINST . . .

. . . with the NEW 3 in 1

American Brake Shoe Controller

The American Brake Shoe Controller gives 3 in 1 protection for diesel locomotives because it:

1. Detects and corrects spin promptly at all speeds.
2. Detects and corrects sliding during braking.
3. Detects and warns if wheel becomes locked.

The American Brake Shoe Controller is not new. Proven through years of service on high-speed passenger car and locomotive equipment, it is now adapted to give 3 in 1 wheel protection on diesel locomotives. American Brake Shoe Company, 230 Park Avenue, New York 17, N. Y.

AMERICAN Brake Shoe COMPANY

BRAKE SHOE AND CASTINGS DIVISION

Meet America's new tank with the fighting name—the *General Patton*.

Built to out-gun and out-maneuver any armor of its size in the world, the Patton weighs in at 47 tons . . . most of it steel.

The vital role steel plays in national defense preparations comes as no surprise. But, did you know it takes more than 70 tons of *coal* to make a Patton tank? For into every ton of finished steel has gone more than a ton of coal.

And, with American industry moving into high gear for national defense, it's good to know that the coal industry is ready!

America's progressive coal operators, in recent years, have invested many millions of dollars in new properties, in mechanization, in more coal preparation plants, and in research.

This program has resulted in larger supplies of better coals for more efficient utilization. And today, the coal industry is better prepared than ever before in history to serve America well—in peace or war.

Progressive mine management, using private capital—no government subsidies—has brought the coal industry to a higher level of productive capacity than ever before. This is the proven American way of free enterprise. With an uninterrupted flow of essential working tools and with the requisite man power, the coal mines—the very backbone of our nation's productive strength—can supply all the coal our nation may need.

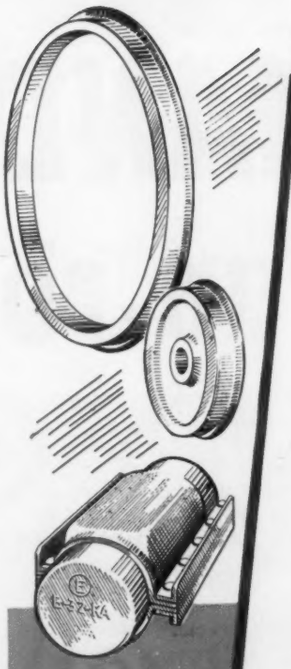
BITUMINOUS COAL

BITUMINOUS COAL INSTITUTE

A Department of National Coal Association

WASHINGTON, D. C.

Note To Users of Coal—*Make the maximum use of your storage facilities—stock coal in the summer and fall months when transportation and handling are usually most efficient.*



Production Soldiers —By Hungerford

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

Watch for other railroad cartoons by Mr. Hungerford

Edgewater Steel Company

P. O. Box 478
Pittsburgh 30, Pa.

Serving America's Railroads with . . .

ROLLED STEEL TIRES
ROLLED STEEL WHEELS
DRAFT GEARS

Light Traffic Economy

DEMANDS A

THE 70-TON,

98% AVAILABILITY

SPECIFICATIONS

Weight	139,000 lb
Length	37 feet
Height	13 feet 5⅜ inches
Width	10 feet
Diesel Engine	1000 rpm, 660 hp
Fuel Capacity	500 gallons
Maximum speed	55 mph

For instance, on the Marianna and Blountstown Railroad, one 70-tonner replaced three steam locomotives, is saving 24 per cent of its cost every year. Used in general switching and road work, the 70-tonner has a two-year availability record of 98 per cent. Savings in fuel costs alone amount to more than $10,000 per year.

Your own motive-power problems may not fit the above illustrations. But your requirements in a locomotive may well be answered by the 70-ton locomotive or its companion unit, the 44-tonner. Call in our representative for more information.

...S A Locomotive Like This...

...N, 600-HP DIESEL-ELECTRIC

HANDLES HEAVY WORKLOAD

The High Point, Thomasville and Denton Railroad serves 125 industries with only three 70-tonners. Two units are used regularly in multiple, and haul a 1900-ton load up a one-mile grade of two per cent. Some shippers in the city of High Point are reached by tracks through the city streets, and thus clean operation at reduced noise levels are important good will factors for the railroad management.

LOW OPERATING COST

Forty-two wooden trestles on the Tallulah Falls Railroad are no problem for the 35,000-lb axle load of the 70-tonner. And relatively high horsepower permits the movement of heavy trains. The two units have cut operating costs $70,000 a year. No wonder H. L. Brewer, General Manager, says "I wouldn't buy any other kind of locomotive."

GENERAL ELECTRIC

121-55

KEEP Switches FREE OF SNOW AND ICE WITH BETHLEHEM *Winter Kings*

Yes, there *is* a sure, low-cost method of preventing freeze-ups at switches and slips. It's the Bethlehem Winter King method, successfully used for many years by railroads in the "cold country."

The Winter King Switch Heater fights snow as it falls, killing off ice before it gets a foothold. This sturdy little device has a shielded flame that burns steadily beneath rail and switch point—a flame that can easily be regulated to local conditions. Even in gusty wind the flame stays alive, thereby eliminating freeze-ups far more effectively than hand methods ever could.

Winter Kings fit conveniently between ties, with the fuel chamber always accessible. Fuel (low-priced kerosene) can safely be added while the flame is burning. After the filling, a self-closing cover snaps briskly into place and effectively shuts out dirt and cinders.

Final good point: you won't spend a fortune buying and maintaining Winter Kings. They're so very inexpensive in first cost, and maintenance is practically nothing. Try some this winter; get 'em now before the cold weather really sets in.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM STEEL

YOU'VE TRIED

ALL THESE

...but lading-damage prevention begins with the car

DOUBLE-ACTION CUSHIONING TAKES THE BITE OUT OF IMPACT...

it's your best lading-damage prevention

You've tried every solution, save one, of the lading-damage problem . . . *yet in 1949 lading damage per ton-mile of freight carried was the highest in history!*

There is a solution . . . Waughmat Twin Cushions. The Twin Cushion double-action cushioning takes the bite out of impact . . . dissipates the forces that destroy the lading. This is no idle claim. It has been proven year after year in millions of miles of stock car and symbol box car service. Twin Cushions cost more, but you should save the slight extra cost in the first few months when your cars are protected by Waughmat double-action Twin Cushions. For replacement or new equipment, specify the A.A.R. approved Waughmat Twin Cushions.

TYPE WM 4-6
A.A.R.
APPROVED

WAUGH EQUIPMENT COMPANY
New York • Chicago • St. Louis • San Francisco
Canadian Waugh Equipment Company
Montreal

WAUGHMAT
Twin Cushions

TRADE MARK REGISTERED

You asked for it... HERE IT IS—

AO's New Metal Ful-Vue Safety GOGGLE!

HANDSOMER IN APPEARANCE • **STRONGER** IN STRUCTURE

With the introduction of the F4100 Metal Ful-Vue, AO's protection against the impact of flying particles reaches its highest development. Here in one goggle, with or without side shields, workers can obtain the peace of mind which comes from assured safety . . . the utmost in comfort over nose and temples . . . the very finest in EYE APPEAL PLUS EYE PROTECTION!

QUICK FACTS

NEW EYEWIRE — A major contribution to *looks with strength.* Outer edges are square instead of round with a deep groove to hold lenses securely in place. Beaded engraving adds a distinctive touch. The lightweight eyewire is strong and durable.

NEW RUGGED ENDPIECE—Streamlined . . . with a wide bearing surface at hinge which minimizes temple drop. Screw heads are countersunk and flush with endpieces for added good looks, non-sagging security.

NEW LIGHTWEIGHT TEMPLE—Oval temples instead of round for greater comfort and attractiveness. Easily adjusted, perspiration proof. Insulated semi or half tubing is another appearance improver and will outlast life of the temple. Tubing will not come off and it can't be discolored by dirt or grease. Both the temple and endpiece screws are AO patented "Ever-tite" construction . . . they keep tight in service yet remove quickly when replacing lenses.

IMPROVED GUARD ARMS AND BRIDGE — Guard Arms are newly shaped — longer with more opening for added ease of adjustment. The bridge is double braced with four contact joints — a feature found only in AO Ful-Vue spectacle goggles.

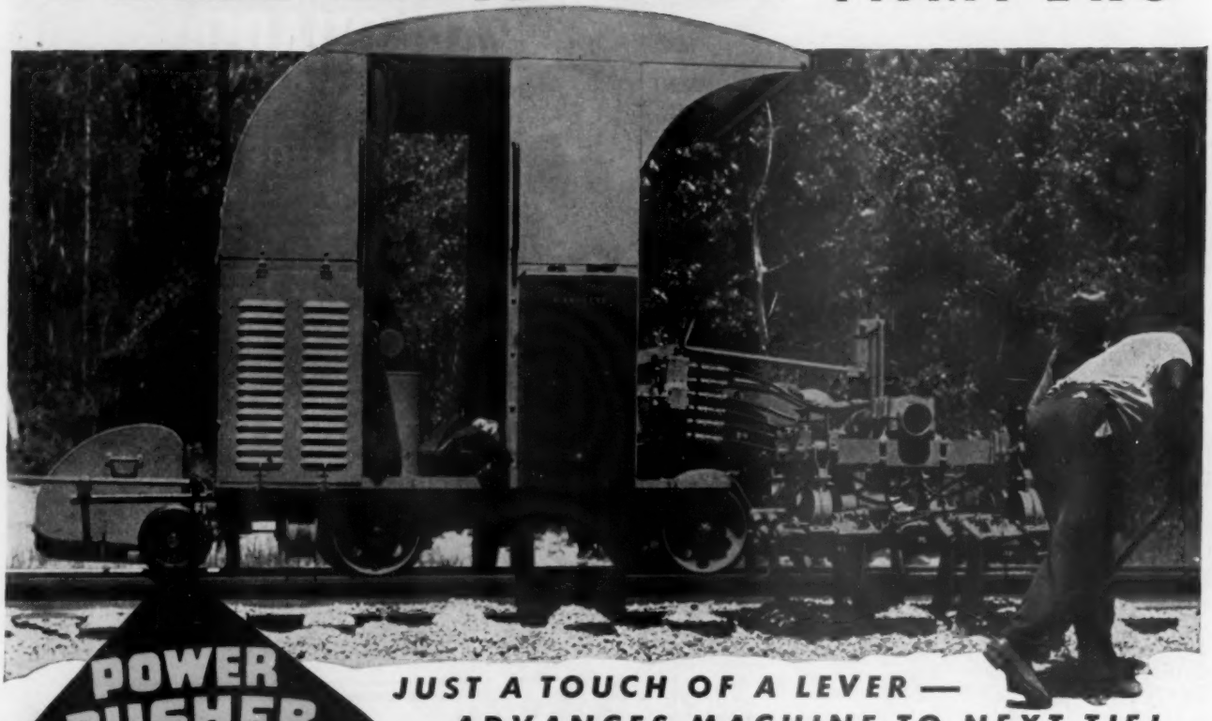
NEW SIDE SHIELD CONSTRUCTION — A real time saver . . . new one-piece binder and eyewire construction *eliminates necessity of inserting the screen before inserting lenses!* Replacement of lenses can now be made without any interference with or from the side shield.

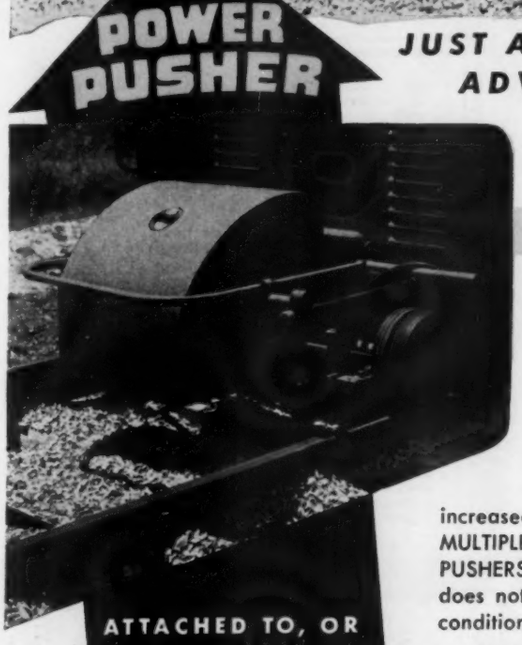
For these and many other reasons, be sure to see the new F4100. YOUR NEAREST AO SAFETY REPRESENTATIVE CAN SUPPLY YOU.

American Optical COMPANY
SAFETY PRODUCTS DIVISION

SOUTHBRIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES

Now available for all
JACKSON MULTIPLE TAMPERS





ATTACHED TO, OR DETACHED FROM OLD OR NEW MODELS IN A MATTER OF SECONDS!

JUST A TOUCH OF A LEVER — ADVANCES MACHINE TO NEXT TIE!

QUICKLY — SMOOTHLY — EFFORTLESSLY REGARDLESS OF GRADE OR CURVE

PAYS FOR ITSELF IN SHORT ORDER

The Jackson POWER PUSHER, which may be attached to, or detached from, any Jackson MULTIPLE TAMPER in a matter of seconds, was developed and perfected after many months of research and close observation of its operation in the field. It eliminates all manual labor in advancing the MULTIPLE TAMPER from tie to tie, even on the stiffest grades and curves. It greatly decreases the element of fatigue on the part of the operator and consequently even on the straight, level stretches results obtained with the Jackson MULTIPLE are considerably increased when the POWER PUSHER is employed. And where two MULTIPLES are operated in tandem, the benefit derived from the POWER PUSHERS is more than doubled. Furthermore, use of the POWER PUSHER does not detract from the MULTIPLE'S practicality under average traffic conditions since three men can readily lift it from the track.

Write, **wire or phone for complete details of the Jackson POWER PUSHER and our rental plan for those who would like to determine just what it will do under their particular conditions prior to making outright purchase.**

ELECTRIC TAMPER & EQUIPMENT CO.
LUDINGTON, MICHIGAN

Just as a vault safeguards valuables, so does Streamlite HAIRINSUL safeguard vital shipments of perishables against damage from sudden and extreme temperature changes.

Streamlite HAIRINSUL, the all-hair insulation which weighs 40% less, is specified by major builders of refrigerator cars because it is the most efficient and economical.

Highlights of the principal advantages gained by using Streamlite HAIRINSUL are given at the right —write for complete data.

LOW CONDUCTIVITY. Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity – .25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT. Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT. Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL. Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE. STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings are available.

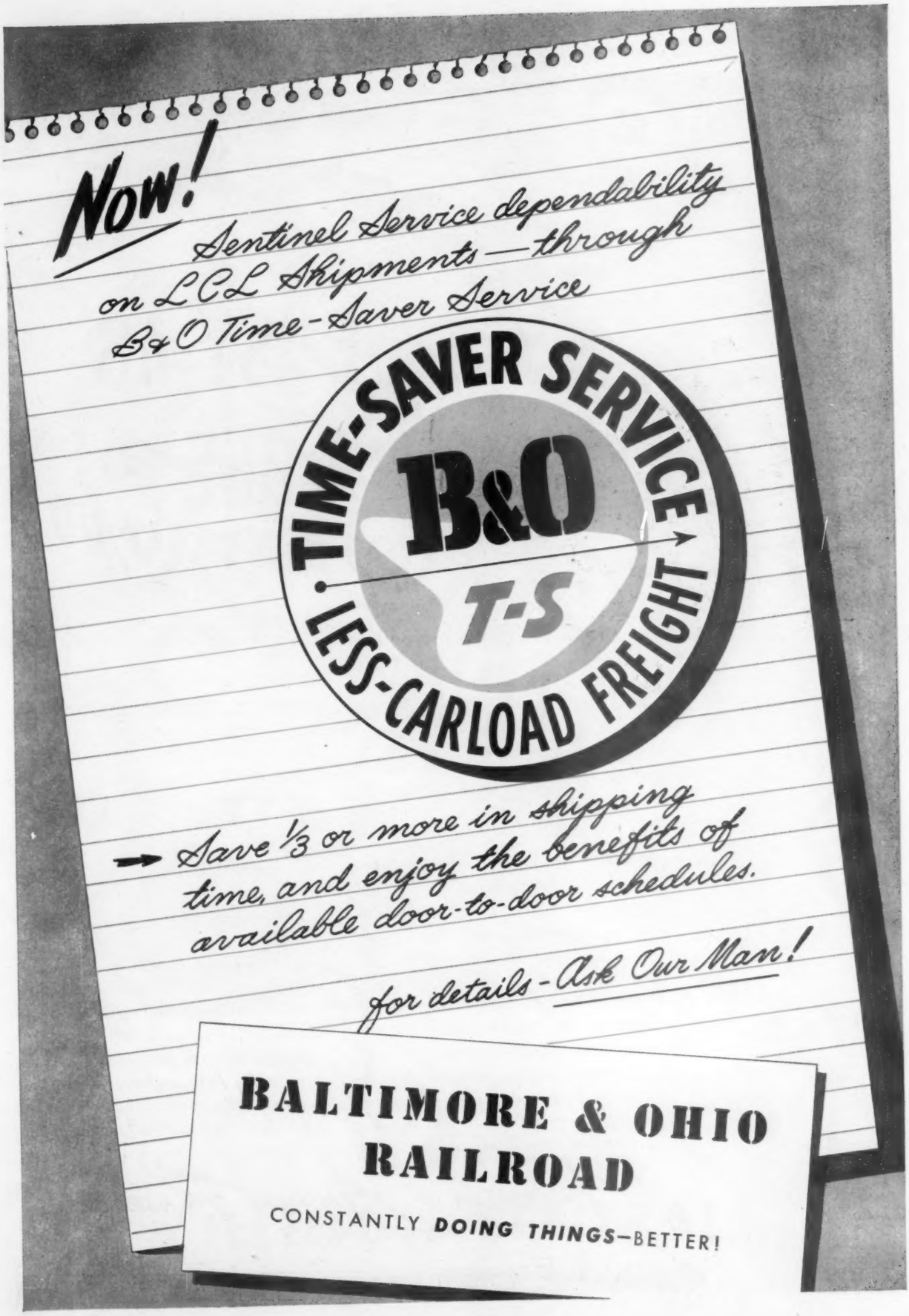
HIGH SALVAGE VALUE. The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

Sets The Standard By Which All Other Refrigerator Car Insulations Are Judged

Streamlite **HAIRINSUL**

AMERICAN HAIR & FELT CO.

Dept. H5010, Merchandise Mart, Chicago 54, Ill.


Now!
Sentinel Service dependability
on LCL Shipments — through
B&O Time-Saver Service
TIME-SAVER SERVICE
B&O
T-S
LESS-CARLOAD FREIGHT
Save 1/3 or more in shipping
time, and enjoy the benefits of
available door-to-door schedules.
for details - Ask Our Man!
BALTIMORE & OHIO
RAILROAD
CONSTANTLY DOING THINGS—BETTER!

BUSY AS A BEE ~~BEE~~ Boxcar!

Busiest thing around nowadays is your old friend, the freight car!

Busy carrying the things that America eats, wears and uses.

Busy carrying the raw materials to make these things.

Busy carrying the machinery, the munitions and the material that go to make our country strong.

Increased military movements – increased defense demands – increased buying – increased production all along the line – all these mean that each week 850,000 freight cars are loaded and sent on their way. That's enough to make a train stretching all the way from the Atlantic to the Pacific and back again!

The railroads have moved swiftly to meet the increased demand for freight cars. They have stepped up their car repair and rebuilding program. And they have ordered more than 100,000 *new* freight cars for earliest possible delivery.

Shippers are helping greatly by loading and unloading cars promptly and by operating shipping rooms and loading platforms six days a week instead of five – the equivalent of adding thousands of cars to the present supply!

It all adds up to the fact that the railroad freight car fleet is *busy* and *growing* . . . continuing to carry the overwhelming bulk of the goods for America's civilian economy and her national defense!

ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.

Listen to THE RAILROAD HOUR every Monday evening on NBC.

ILLINOIS CENTRAL

Teamed for Top Efficiency

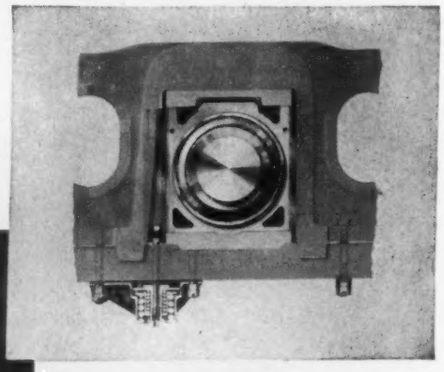
Fast, direct Illinois Central freight service—for carload shipments, perishables and merchandise—connects all Mid-America with the Port of New Orleans, the most economical gateway to international trade with Latin America, Africa and other world ports.

ILLINOIS CENTRAL

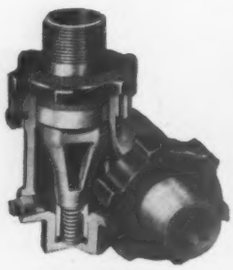
Main Line of Mid-America

use Franklin parts on Franklin devices

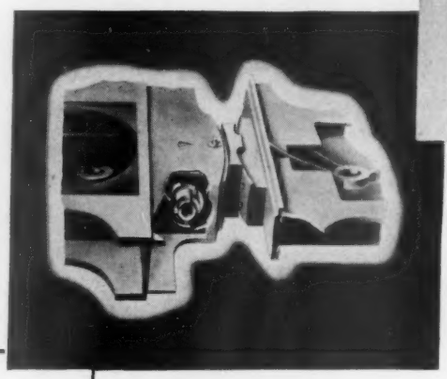
In order to obtain full efficiency from your Franklin devices, specify genuine Franklin parts in replacement. Franklin devices will always perform best when equipped with genuine Franklin parts made to interchangeable tolerances and of the correct materials.



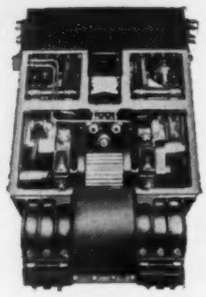
Automatic Compensators & Snubbers



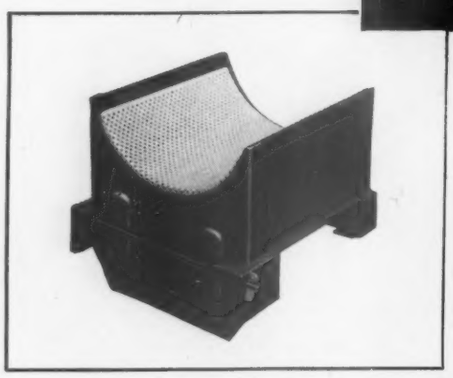
Sleeve Joints



Radial Buffers



The Locomotive Booster

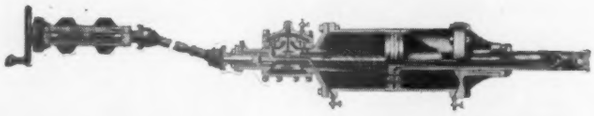


Driving Box Lubricators

Fire Doors

Franklin System of Steam Distribution

Power Reverse Gears



FRANKLIN RAILWAY SUPPLY COMPANY

A CORPORATION

NEW YORK • CHICAGO • TULSA • MONTREAL

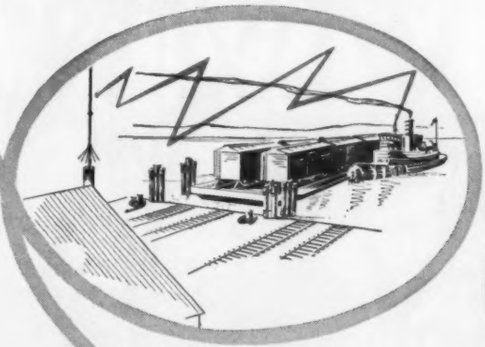
STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
FIRE DOORS • DRIVING BOX LUBRICATORS • OVERFIRE JETS • JOURNAL BOXES • FLEXIBLE JOINTS • TANK-CAR VALVE

RAILWAY DISTRIBUTOR FOR N.A. STRAND FLEXIBLE SHAFT EQUIPMENT

More and More Railroads Are Turning to Bendix Radio!

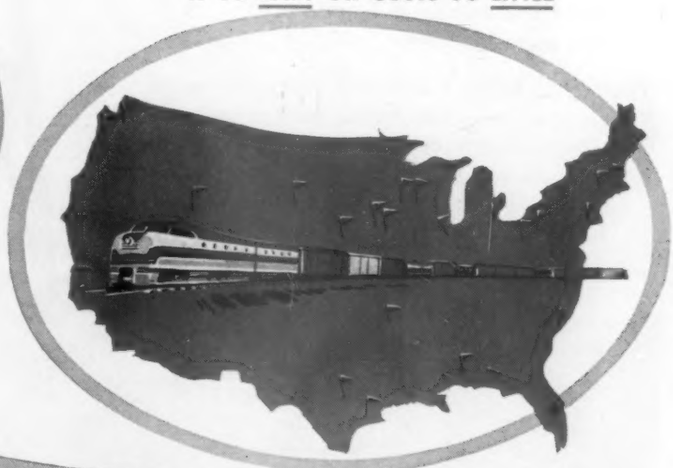
Have you considered the installation of Bendix Radio equipment on *your* railroad? If you haven't you owe it to yourself to look into the matter because progressive railroads all over America have found that Bendix Railroad Radio reduces everyday operating costs to an amazing degree. Case histories, facts and figures compiled by the railroads themselves all prove it . . . the added teamwork and efficiency, afforded by Bendix Radio's instantaneous, clear-voice communication, inevitably clip minutes and even hours from routine railroading operations. It is readily adaptable to virtually every type of railroad operation. And best of all, the original cost is much lower than you would believe possible. Write for details.

FIRST IN SPEEDING YARD OPERATIONS



FIRST IN HARBOR INSTALLATIONS

NO OTHER MAJOR IMPROVEMENT IS SO EASY OR COSTS SO LITTLE



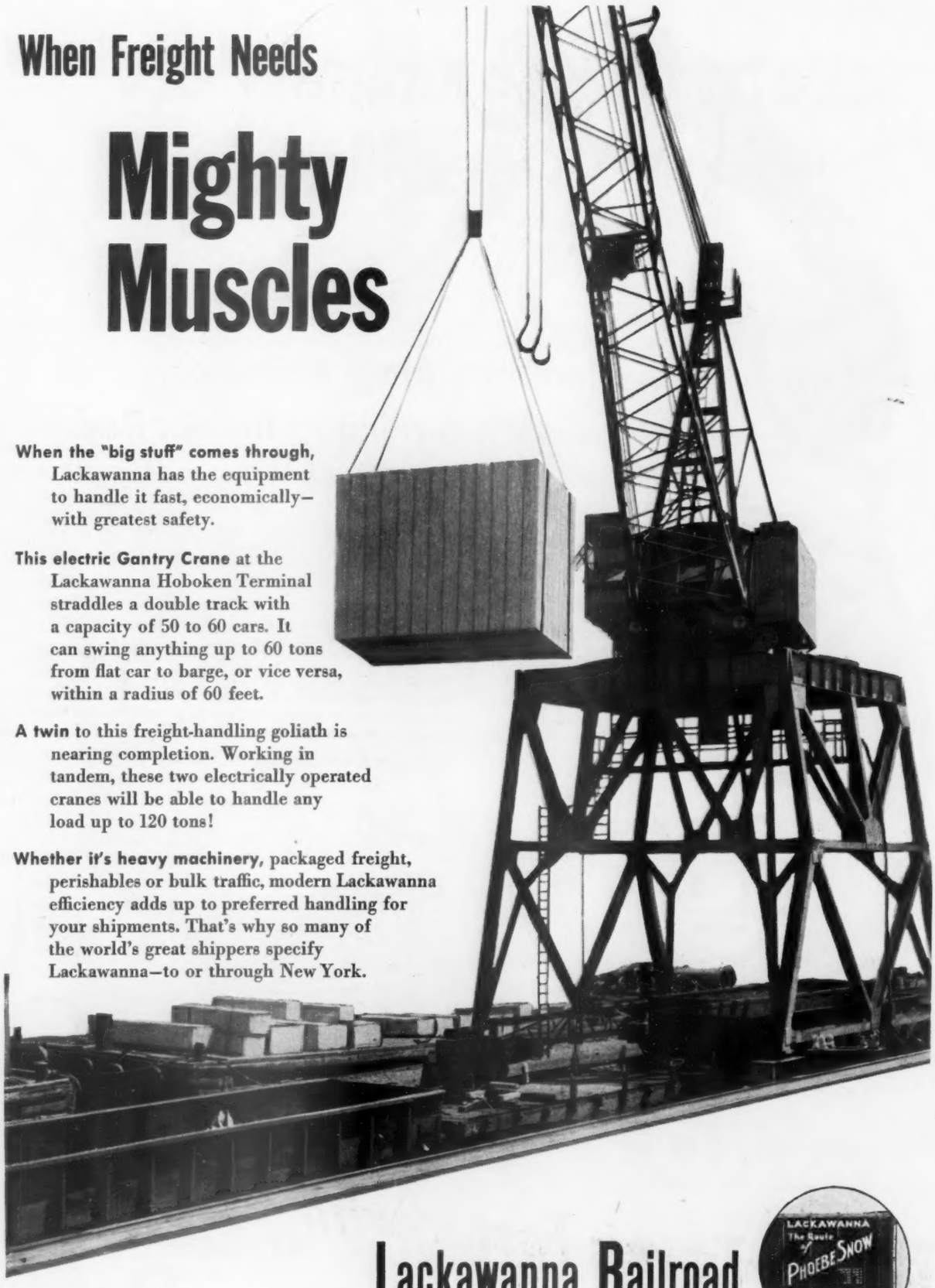
Freight Travels Faster with Bendix Radio

BENDIX RADIO
REG. U.S. PAT. OFF.

BENDIX RADIO DIVISION of Bendix AVIATION CORPORATION
BALTIMORE 4, MARYLAND
Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.

When Freight Needs

Mighty Muscles



When the "big stuff" comes through, Lackawanna has the equipment to handle it fast, economically—with greatest safety.

This electric Gantry Crane at the Lackawanna Hoboken Terminal straddles a double track with a capacity of 50 to 60 cars. It can swing anything up to 60 tons from flat car to barge, or vice versa, within a radius of 60 feet.

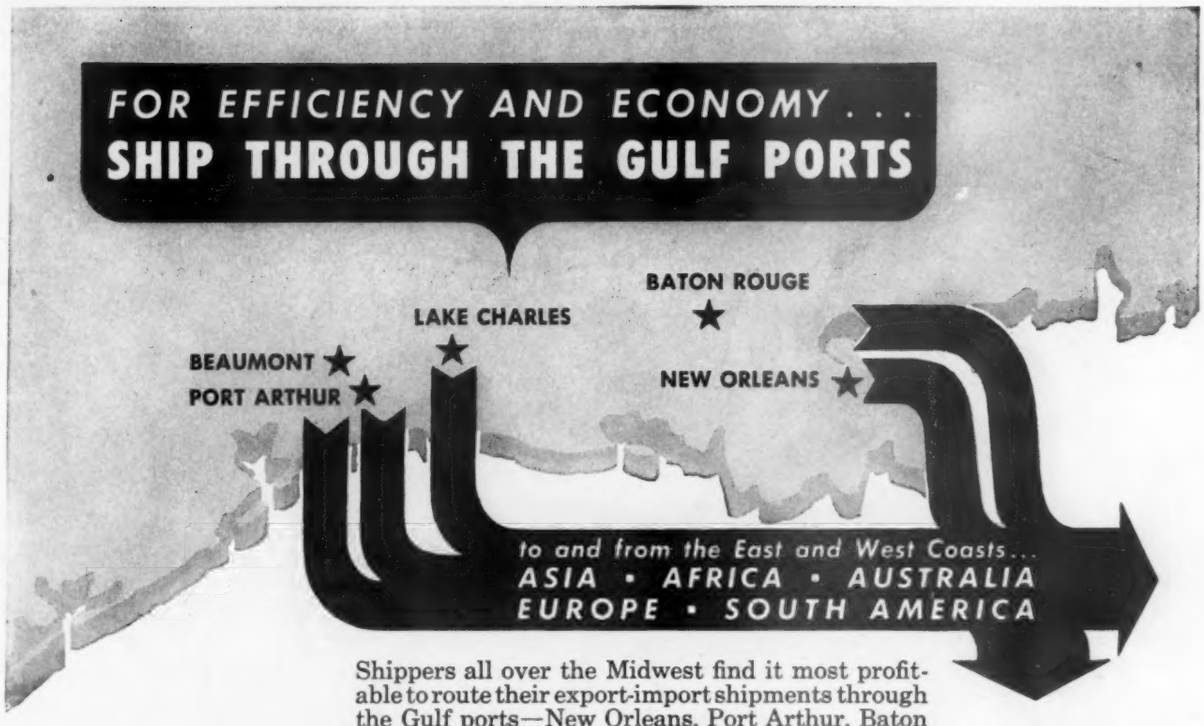
A twin to this freight-handling goliath is nearing completion. Working in tandem, these two electrically operated cranes will be able to handle any load up to 120 tons!

Whether it's heavy machinery, packaged freight, perishables or bulk traffic, modern Lackawanna efficiency adds up to preferred handling for your shipments. That's why so many of the world's great shippers specify Lackawanna—to or through New York.

Lackawanna Railroad

LACKAWANNA The Route of PHOEBE SNOW

SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE OF PHOEBE SNOW



Shippers all over the Midwest find it most profitable to route their export-import shipments through the Gulf ports—New Orleans, Port Arthur, Baton Rouge, Beaumont and Lake Charles. You save time, prevent bottlenecks and get substantial cost savings on rail rates, loading and unloading charges.

SHIP *to* THE GULF PORTS via K.C.S. *Dieselized* FREIGHT

K. C. S. Lines' freight moves *fast* and *on-time* between Kansas City and the Gulf ports. It's a combination of route, roadbed, equipment and top-notch operating personnel that does the job! The K. C. S. route to the Gulf is *direct.* Diesel locomotives power *fast* K. C. S. freights. And the men who get your freight to its destinations *on-time* have had years of rail experience!

SHIP TO AND FROM THE GULF PORTS AND THE SOUTH-SOUTHWEST VIA K. C. S. DIESELIZED FREIGHT!

K. C. S. 77 rolls south from Kansas City every night at 9:45—to get your shipments to their destinations in a hurry!

For FREIGHT with a DATE, it's K. C. S. Lines!

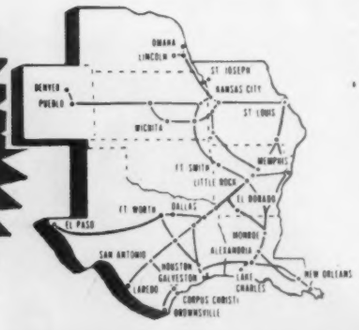
J. W. SCOTT
Vice-President—Traffic, Kansas City, Mo.

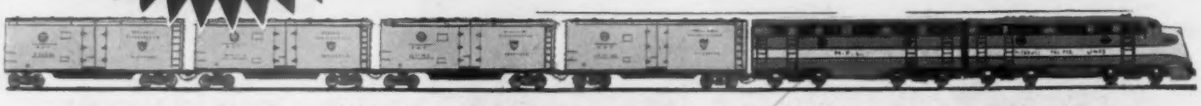
Look for later advertisements giving specific information on the Gulf ports.

Move Perishables via

MISSOURI PACIFIC's modern, efficient handling of freight shipments means faster and finer rail service for you and your product. New equipment, operating over miles of well-maintained roadbeds, can expedite your shipments from the great West-Southwest area to Northern and Eastern markets.

MISSOURI PACIFIC LINES





SERVING THE WEST–SOUTHWEST EMPIRE

EDWARDS DOUBLE GLAZED SASH FOR CONSTANT, BRILLIANT VISIBILITY

IN ALL SEASONS

CLIMATES

ALTITUDES

EDWARDS double glazed, double sealed, dehydrated units may be mounted in two general types of aluminum, bronze or stainless steel sash frames for installation in the window opening.

The first of these designs, generally used up to this time, is the double metal frame type requiring complete removal from the car opening and disassembly of the two frames whenever glass replacement must be made.

The second is an improved design recently developed and being introduced by EDWARDS. It permits quick, easy replacement of the double glazed unit by unskilled workmen without the use of tools. No removal or disturbance of the sash frames is necessary. Replacement expense, unavoidable with the double frame type, is greatly reduced.

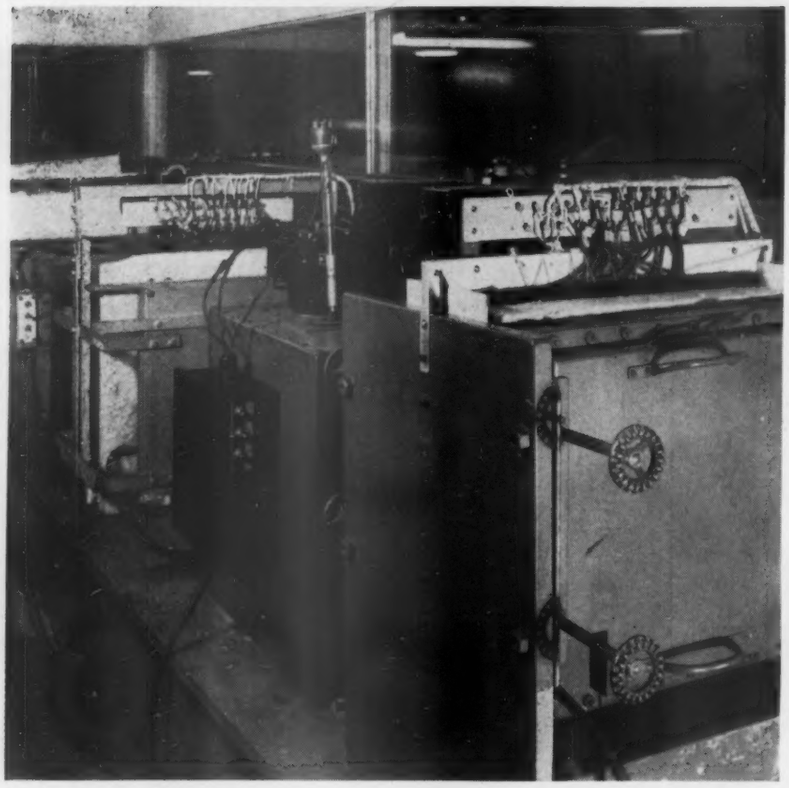
For complete, detailed information on the different types of double glazed units and various designs of sash frames, write us.

THE O. M. EDWARDS CO., INC., SYRACUSE, N.Y.
New York Office — 50 Church St., N.Y.C.

In Canada: O. M. EDWARDS CO. OF CANADA LIMITED
Offices and Plant
4000 NAMUR ST., MONTREAL 16

EDWARDS SASH
THE EYES OF TRANSPORTATION

SASH FOR EVERY TYPE OF TRANSPORTATION—ON LAND, ON THE SEAS, IN THE AIR



At the Fiberglas Research Laboratories three standard hot plates are in 24-hour use, measuring the thermal conductivity of Fiberglas products as they come from production lines.

Insulation Progress

From One of America's Great Research Laboratories

America's eating habits are changing. New means are needed to implement the change. New products, or improved old ones, must pace the advance. In the insulation of food in transport, the job of pushing back the technical frontiers is accepted as a challenge by the great Research Laboratories of the Owens-Corning Fiberglas Corporation.

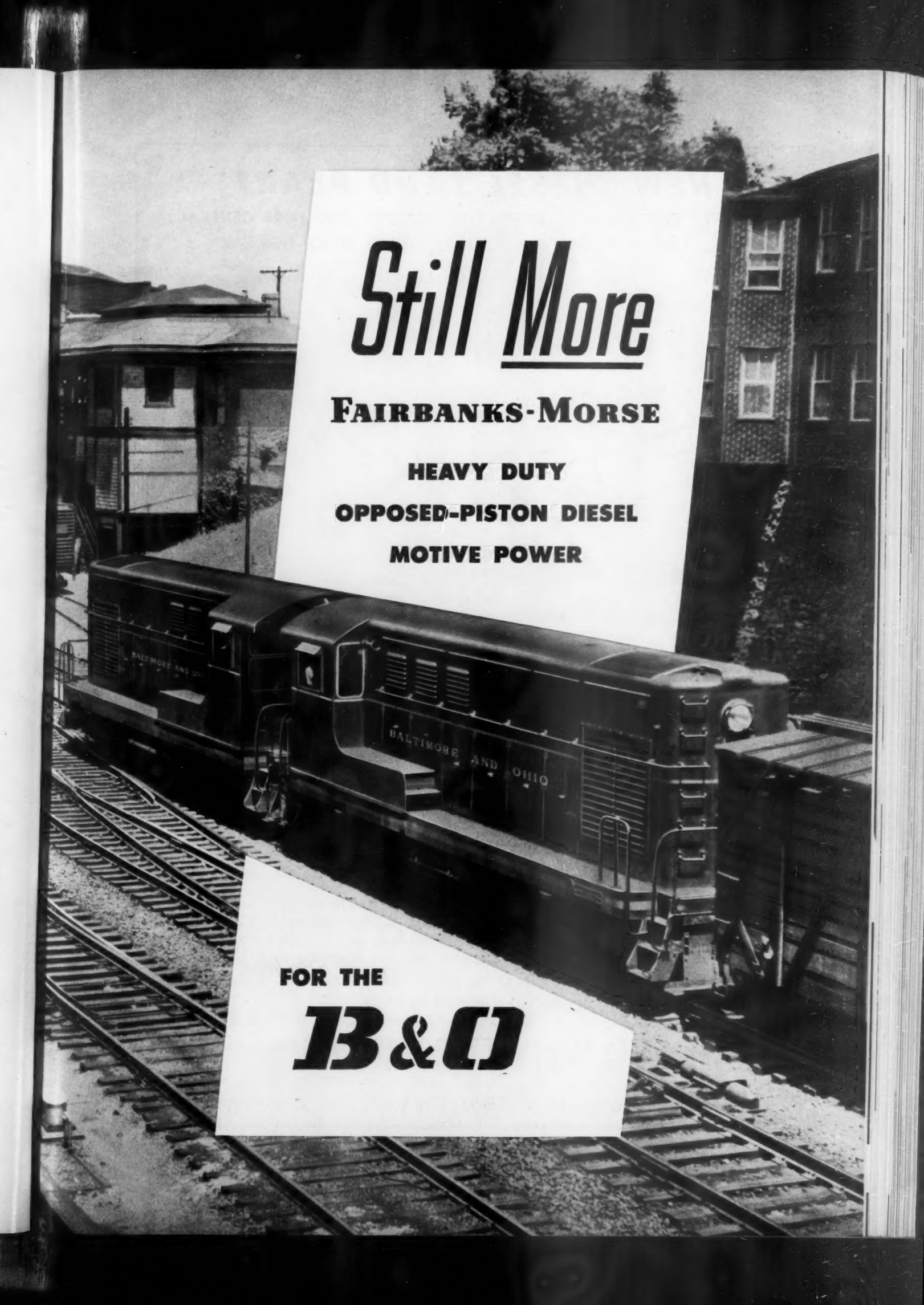
Here the "candidate" products are tested. Here standards are set, and exceeded. Here the glass fiber product of tomorrow is proved.

No matter what insulation product you buy that contains a Fiberglas* material, its glass fiber in that same fabricated form has passed the test of science and experience here at one of America's great industrial laboratories. For details and samples, phone or write Owens-Corning Fiberglas Corporation, Dept. 21-J1, Toledo 1, Ohio.

OWENS-CORNING
FIBERGLAS

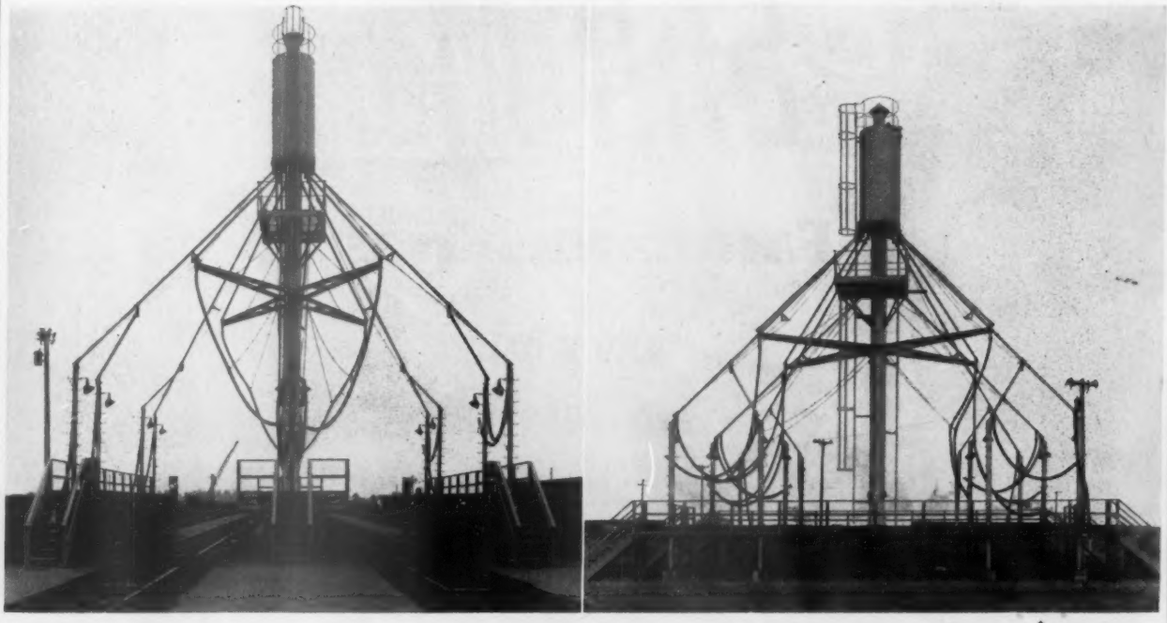
*Fiberglas is the trade-mark (Reg. U.S. Pat. Off.) for a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation.

FIBERGLAS IS IN YOUR LIFE...FOR GOOD!


Still More
FAIRBANKS-MORSE
HEAVY DUTY
OPPOSED-PISTON DIESEL
MOTIVE POWER
BALTIMORE AND OHIO
FOR THE
B&O

NEW DIESEL SAND PLANT

DESIGNED AND MANUFACTURED BY US FOR THE NEW YORK CENTRAL RAILROAD AT STANLEY YARD, TOLEDO, OHIO, 1950.



NO PRE HANDLING OR MANUAL MOVING OF SANDING EQUIPMENT REQUIRED IN A ROSS AND WHITE DIESEL SAND PLANT.

DIESEL LOCOMOTIVES MERELY MOVE IN ON THE TRACKS UNDER THE SANDING PLANT. IT ONLY REQUIRES THE OPERATOR TO OPEN THE "B&M" SAND VALVES AND THE ENGINES ARE SANDED. NO MANUAL LABOR REQUIRED IN MOVING THE EQUIPMENT BACK OUT OF THE CLEARANCE LINE OF THE SANDING TRACK. OUR STRUCTURE IS ALWAYS ABOVE THE CLEARANCE LINE OF THE SANDING TRACKS AND READY FOR INSTANT USE.

ON THE ABOVE PLANT, ALL SIDE BOXES ON ROAD LOCOMOTIVES AND SWITCHERS ARE SANDED WITH ONE SPOTTING OF THE LOCOMOTIVE. WE TERM THIS "NEW YORK CENTRAL DESIGN, "UNLIMITED ADAPTABILITY."

3" DIAMETER SAND DISCHARGE PIPES SUPPLIES TWICE THE SANDING CAPACITY OF 2" PIPE. THEREFORE QUICKER RELEASE OF LOCOMOTIVES.

ON JULY 26, 1950, AN OFFICIAL OF A LARGE RAILROAD WROTE US:

"IT NOW DEVELOPS THAT THE 2" VALVES WHICH WE HAVE RECEIVED ARE TOO SMALL AND WITH THE VOLUME OF SAND FLOW, WILL TAKE TOO LONG TO SAND DIESEL LOCOMOTIVES AND OUR MECHANICAL PEOPLE HAVE REQUESTED THAT THEY BE REPLACED WITH LARGE 3" SIZE". (NAME ON REQUEST)

OUR HELP IS YOURS FOR THE ASKING

ROSS AND WHITE COMPANY.

CLYDE P. ROSS, President

DAVID E. WHITE, Vice Pres.

CANADIAN REPRESENTATIVES ... *Railway & Power Engineering Corp. Ltd., Toronto, Montreal*

CHICAGO DAILY NEWS BUILDING, CHICAGO 6, ILLINOIS

NO TWO BLACK EYES?

SIR . . .

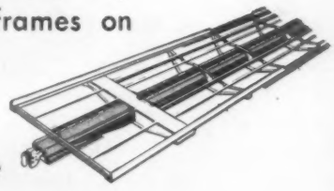
. . . not when lading is safeguarded by "Shock-force control."

When lading is damaged in transit, the shipper holds the originating carrier guilty of negligence. That's one black eye. The consignee heaps his wrath on the road making delivery. That's another black eye.

For every damage claim, two black eyes, two disgruntled customers, two new prime prospects for truck transportation.

How to avoid all this ill-will? Equip cars for the finest possible protection to lading, cushion them from shock with Duryea Cushion Underframe . . . the cushioning device that provides "shock-force control," that protects both cars and lading against the great majority of excessive classification yard coupling impacts.

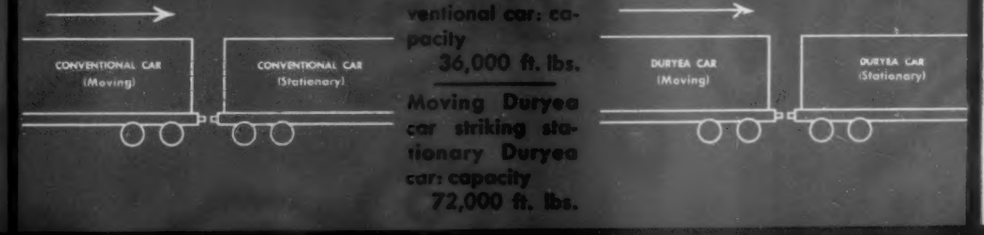
To protect lading, lengthen useful car life, to reduce present fantastic lading damage costs, specify Duryea Cushion Underframes on all new cars.



duryea cushion underframe

HULSON CO. 332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS

40% extra lading protection



Moving conventional car striking stationary conventional car: capacity 36,000 ft. lbs.

Moving Duryea car striking stationary Duryea car: capacity 72,000 ft. lbs.

NEW DIESEL SAND PLANT

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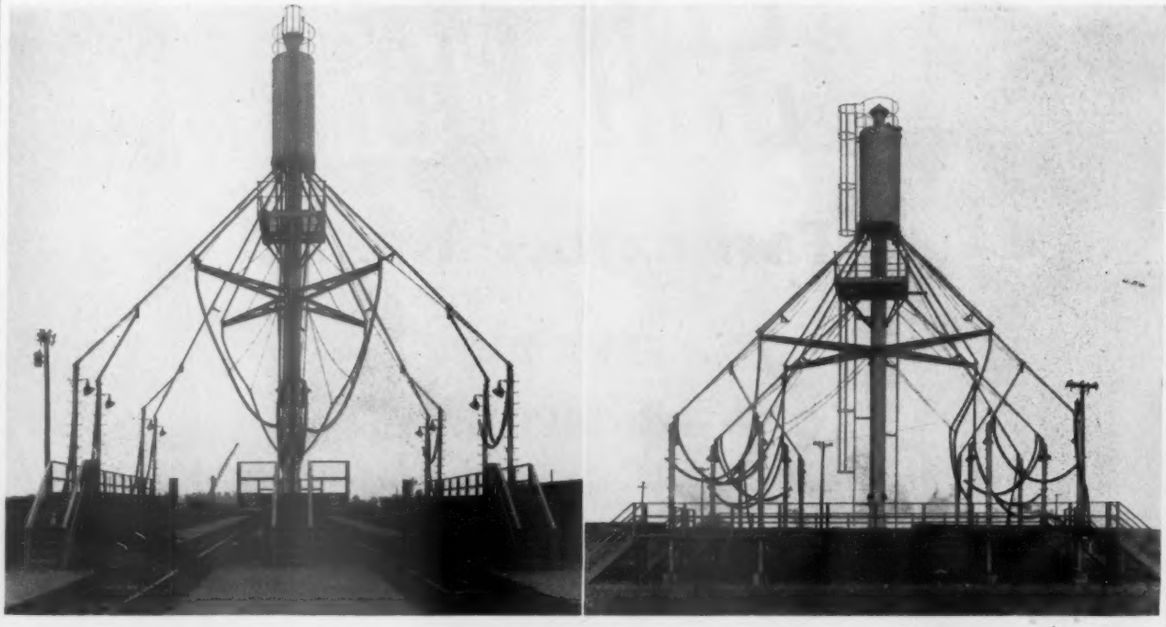

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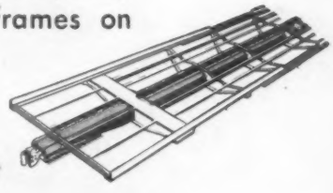

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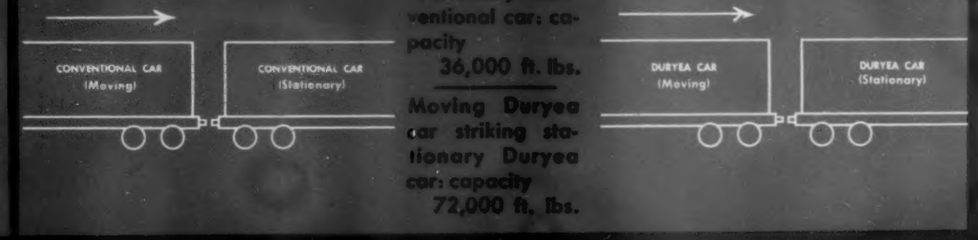
40% extra lading protection


CONVENTIONAL CAR (Moving)
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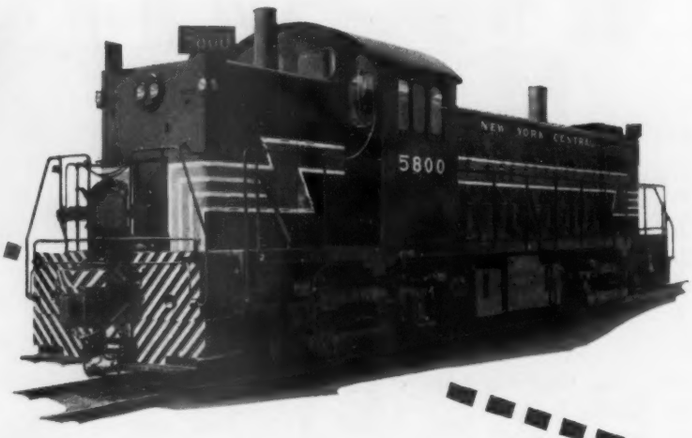
Moving conventional car striking stationary conventional car: capacity 36,000 ft. lbs.
Moving Duryea car striking stationary Duryea car: capacity 72,000 ft. lbs.
DURYEA CAR (Moving)
DURYEA CAR (Stationary)

New York Central receives **2ND ORDER**

of

LIMA-HAMILTON

DIESEL-ELECTRIC LOCOMOTIVES



Last September the New York Central received its first Lima-Hamilton diesel — part of an order for six 120-ton switchers, rated 1000 horsepower.

Today the Central is taking delivery on its second order of *16 more* Lima-Hamilton diesels. Shown here is one of the new locomotives. All are road switchers, built to these specifications:

Total length, 57′ 0″
Total weight, 125 tons
Horsepower available for traction, 1200
Maximum speed, 60 mph
Continuous T.E., 34,000 lb
Heating boiler capacity, 2500 lb/hr

These new locomotives — powered by 8-cylinder in-line Lima-Hamilton diesel engines — represent the most advanced design in diesel switchers. They are the product of years of specialized locomotive and diesel experience.

LIMA HAMILTON CORPORATION

LIMA-HAMILTON CORPORATION
Lima Locomotive Works Division
LIMA, OHIO

Flash! New York Central places 3rd order.

27 more Lima-Hamilton switchers have been ordered by the New York Central System. These locomotives will completely dieselize two affiliates of the system, the Chicago River and Indiana Railroad and the Chicago Junction Railway—*all* motive power being Lima-Hamilton.

FOR CAR ACCOUNTING, CAR RECORDS, OPERATING STATISTICS . . .

Remington Rand Announces

A NEW, MECHANIZED, COST-CUTTING METHOD

This New Method eliminates peak loads, levels off the work, and saves money by:—

■ *Daily* processing of Car Record Cards ■ *Daily* discovery of missing records ■ *Daily* detection of erroneous car references ■ Mechanical computation of Per Diem Owing; mechanical reconciliation of Per Diem Received as compared with Per Diem Earned ■ Preparation of complete Operating Statistics—as a by-product.

In addition, where teletype transmission is available, Train Consists can be automatically converted to 90-column punched cards by the synchronization of teletype facilities and Remington Rand Tabulating Machines.

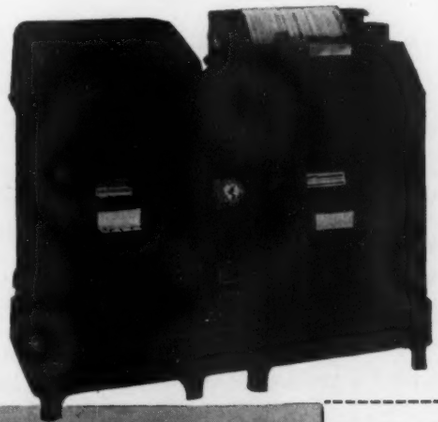


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Photo by Josef A. Schneider

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Well — OK! But have you really thought about it from all angles?

Frankly, there would be very little freight for anyone if it weren't for the railroads. At least in the western area which our railroad serves.

Why? Well, for goodness sakes, how come that farmers prospered . . . towns grew up . . . industry developed? And, as a result, there was more and more freight business. Honestly, now, could that have happened without the railroads?

Looks like the truck lines owe us a vote of thanks for building a market for them . . . as for all industry.

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STANDARD ENGINEER'S REPORT

DATA

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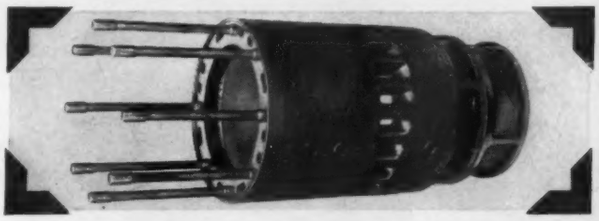
UNIT Locomotive Diesel G.M. 567B

TRAIN "California Zephyr"

SERVICE San Francisco-Salt Lake

FIRM Western Pacific R.R. Co.

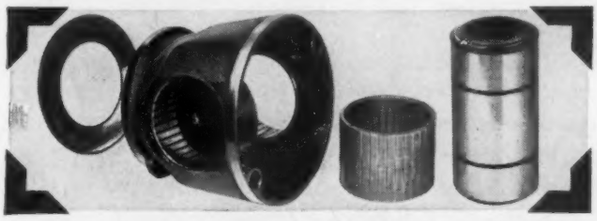
Only 0.002 inch cylinder wear in ½ million miles!



515,720 MILES WITHOUT REPLACEMENT of a single part was the record for all 48-cylinder assemblies in a "California Zephyr" diesel locomotive when this one was pulled for inspection. Lubricated with specially compounded RPM DELO Oil R. R., the engines stay in continuous service a full million miles without time off for overhaul!

"THE CALIFORNIA ZEPHYR," new streamliner with Vista-Dome cars, runs daily both ways across the continent. Only 3 diesel locomotives keep it on schedule between San Francisco and Salt Lake.

NO RING TROUBLE or lacquer deposit problems have been encountered in this long service, as this unretouched photo of the piston indicates. The cylinder "miked" only 0.002 inch taper and 0.0005 inch out of round.



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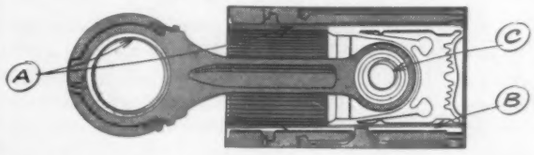

A. Special additive provides metal-adhesion qualities . . . keeps oil on parts whether hot or cold, running or idle.

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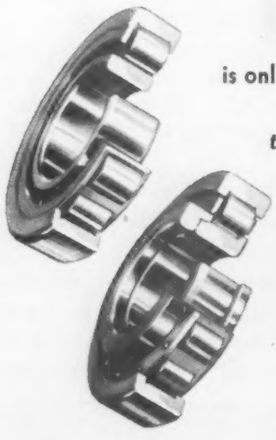

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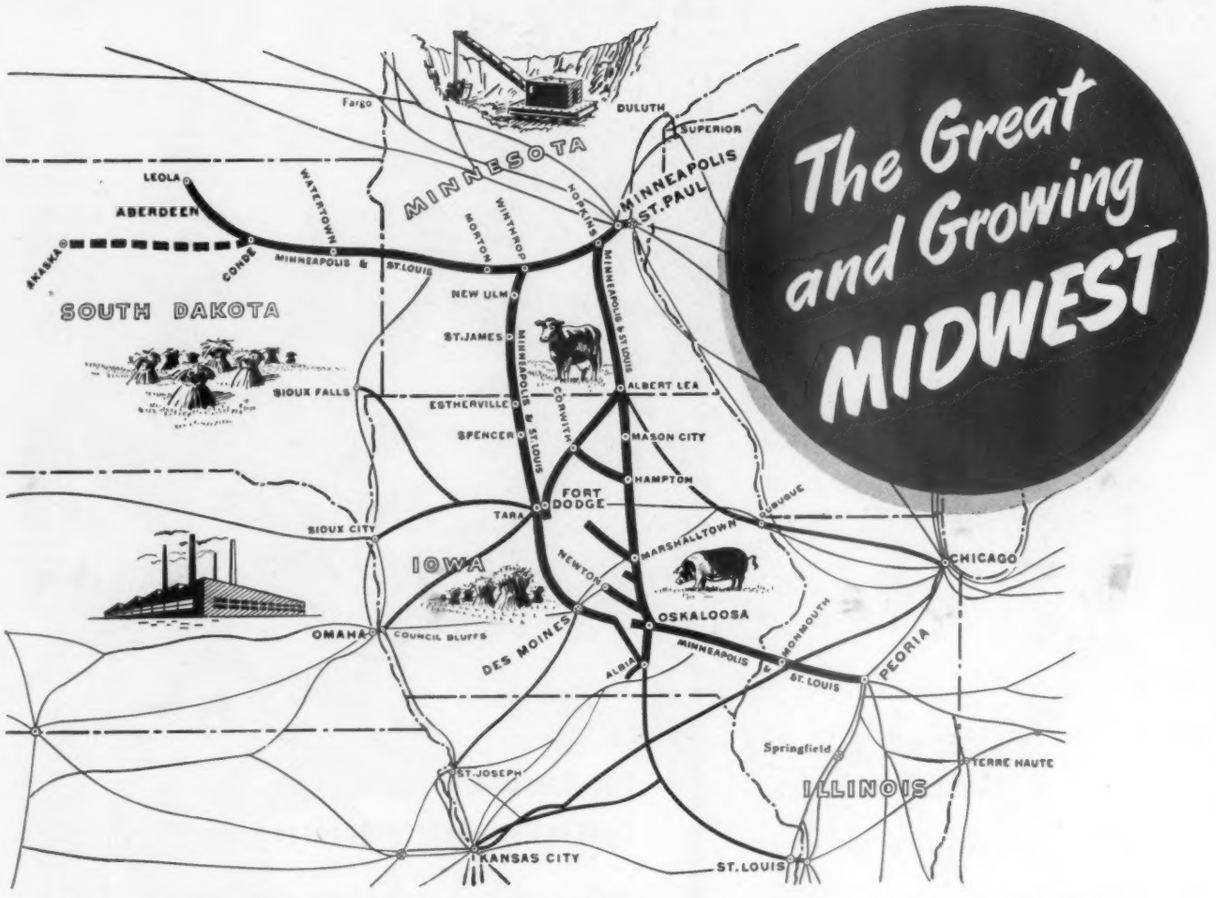

The four Great Midwest States served by the Minneapolis & St. Louis Railway gained an average of 5 per cent in population during the past ten years. The 1950 census gives Illinois, Iowa, Minnesota and South Dakota 14,925,473, nearly 10 per cent of the United States' total.

Coupled with impressive gains in industrial output and per capita income, the population increase evidences the importance of this rich heartland of America as a consuming market and as one of the finer places to live and work.

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For a century, the Midwest has been America's greatest agricultural producer. Now, on the solid foundation of wealth from fertile farms, it is fast building a mighty industrial empire. Its communities offer ideal locations for all types of business and manufacture.

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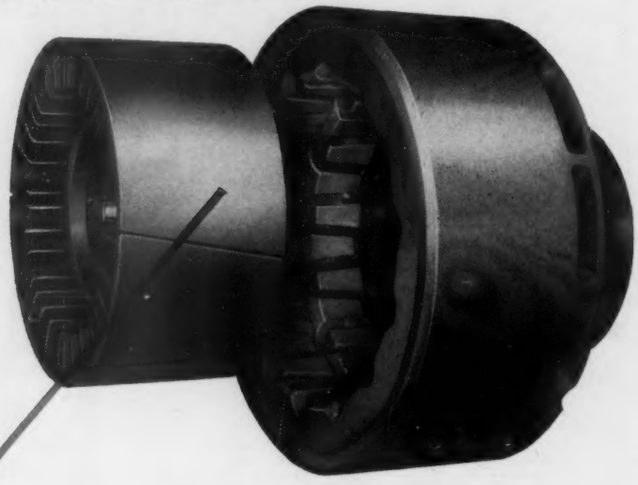
Freight Moves Faster via the M. & St. L.

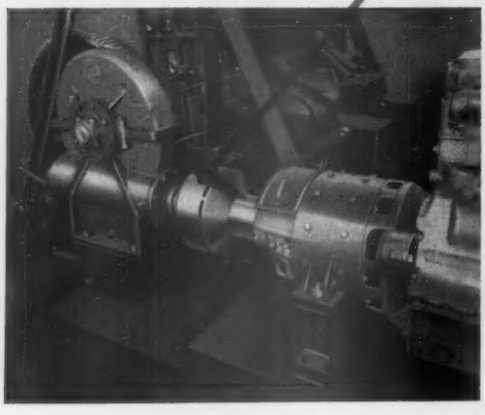
The **Minneapolis & St. Louis** *Railway*

Traffic Offices in 36 Key Cities

NOW AVAILABLE ON **BROWNHOIST** LOCOMOTIVE CRANES . . .

new dyna-matic clutch





For Smooth, Acceleration, and Control of Hoist, Rotating and Travel

The new, electrically operated DYNAMATIC CLUTCH, available only on Brownhoist locomotive cranes, provides a smooth, responsive flow of power never before possible with the usual disc or mechanical clutch for transmitting power to the machinery of a crane. The DYNAMATIC CLUTCH is essentially a driven rotor revolving on anti-friction bearings within a rotating coil energized by a small flow of current from the starting battery. The new DYNAMATIC CLUTCH has a 32-step control. Power response is steady and sensitive. Loads may be raised, lowered, or rotated smoothly and accurately without the use of mechanical brakes. Torsional impulse and vibration from the power source is completely eliminated. The DYNAMATIC CLUTCH provides a cushion between the engine and crane machinery. When clutch is fully engaged there is no appreciable slippage. Since there is no contact between the revolving field and armature, there is no friction between moving parts nor drag between the parts when the controller is in the off position — no parts need replacement other than inexpensive brushes. The new DYNAMATIC CLUTCH is one more good reason it pays to buy a BROWNHOIST.

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BROWNHOIST

INDUSTRIAL BROWNHOIST CORPORATION • BAY CITY, MICHIGAN • DISTRICT OFFICES: New York, Philadelphia, Pittsburgh, Cleveland, San Francisco, Chicago, Canadian Brownhoist Ltd., Montreal, Quebec. **AGENCIES:** Detroit, Birmingham, Houston, Los Angeles, Portland, Seattle, Spokane.

RENEWAL PARTS SERVICE MEANS MORE THAN FAST DELIVERY

Of course, it does—getting the right parts when and where you need them—is of paramount importance to assure the high availability of your Baldwin-Westinghouse diesel-electric locomotives. That is a job to which we have devoted our best efforts.

However, there are other factors which should be considered. Take *quality* for example—which determines accurate fit, long service life and general reliability for the work to be performed.

You can depend on the high quality of replacement parts purchased from Baldwin. They are the result of an extensive program of research, selection and testing designed to make sure that such parts will give you the service you require at the most economical over-all cost.

That is why it will pay you to—

Diesel Renewal Parts Warehouse at St. Louis, one of seven similar facilities maintained to protect the service of your Baldwin-Westinghouse diesel-electrics.

Tested

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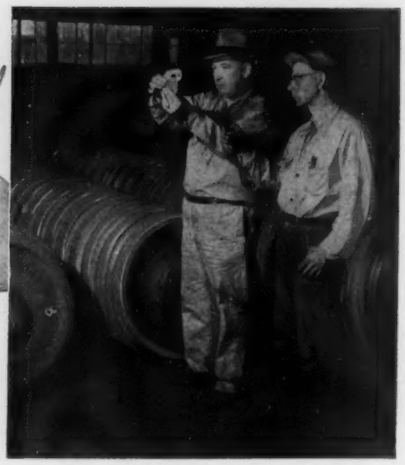
Buy Baldwin Parts for Baldwin Diesels

DIESEL-ELECTRIC LOCOMOTIVES

Resident inspector (left) and general inspector (right) checking the records of a day's run in a chilled car wheel plant. The aim is uniformity from plant to plant in making every wheel as good as the best.

One of the duties of the AMCCW general inspector is to check all gages in use by resident inspectors against his master gages. Here he is seen inspecting the flange thickness gage. The chilled car wheels in the background are ready for shipment.



How inspection makes sure chilled car wheels can take it!

Every AMCCW wheel is tested for rotundity. The steel ring shown in photo must fit to .030" of perfection before the wheel is approved for service. If the wheel fails this exacting test, it must be ground to within .015" of perfect rotundity, or half the permissible limit.

Checking begins with the melt—even before an AMCCW wheel is poured. And never lets up until the wheel is okayed for use.

The AMCCW resident inspector in every AMCCW plant keeps elaborate records of every AMCCW wheel made... checks molding methods ... watches pouring temperatures... supervises rotundity tests... selects wheels for the daily drop and thermal tests. He is responsible, too, for all gages and pyrometers used in the plant.

In addition, a general inspector from Association headquarters spends a week every six months in each AMCCW plant, checking inspection methods and equipment, reviewing the records as shown above and checking all operating details that affect wheel quality, from the cupola to the shipping platform.

Accurate and detailed inspection like this, coupled with a 10-year record of improved values, explains why AMCCW wheels made the best safety record ever in 1949—150,000,000 freight car miles per failure.

AMCCW

Low first cost
Low exchange rates
Reduced inventory
Short haul delivery
Increased ton mileage
High safety standards
Complete AMCCW inspection
Easier shop handling

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

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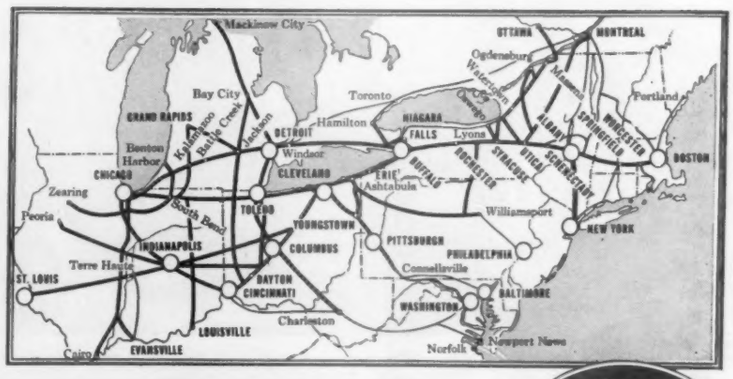
Gateways to the South. Your shipments to or from the Southwest move speedily through New York Central's great southern gateways... Charleston, West Virginia... Cincinnati, Ohio... Louisville, Kentucky... and Cairo, Illinois.

Gateways to Canada. New York Central's own service speeds your shipments direct to two Canadian provinces... and joins up with the great rail systems serving all Canada from the Pacific to the Atlantic.

FOR ROUTING HELP THAT'S NOT ROUTINE,

ask your local freight agent to put you in touch with New York Central's nearest Freight Traffic Representative. His expert help can save you time and money. And it's yours for the asking.

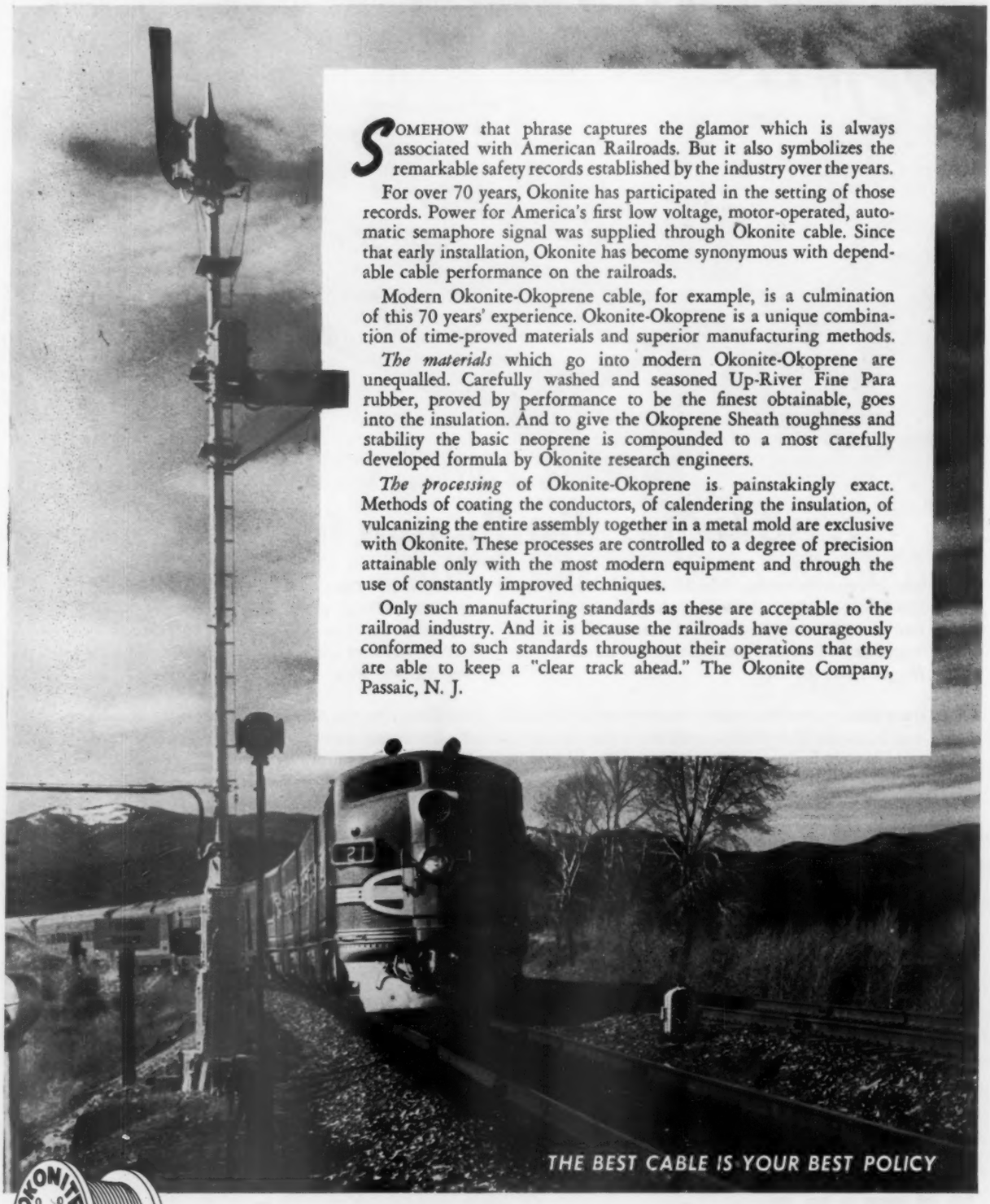


NEW YORK CENTRAL

The Smooth Water Level Route

NEW YORK CENTRAL SYSTEM

CLEAR TRACK AHEAD



SOMEHOW that phrase captures the glamor which is always associated with American Railroads. But it also symbolizes the remarkable safety records established by the industry over the years.

For over 70 years, Okonite has participated in the setting of those records. Power for America's first low voltage, motor-operated, automatic semaphore signal was supplied through Okonite cable. Since that early installation, Okonite has become synonymous with dependable cable performance on the railroads.

Modern Okonite-Okoprene cable, for example, is a culmination of this 70 years' experience. Okonite-Okoprene is a unique combination of time-proved materials and superior manufacturing methods.

The materials which go into modern Okonite-Okoprene are unequalled. Carefully washed and seasoned Up-River Fine Para rubber, proved by performance to be the finest obtainable, goes into the insulation. And to give the Okoprene Sheath toughness and stability the basic neoprene is compounded to a most carefully developed formula by Okonite research engineers.

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Only such manufacturing standards as these are acceptable to the railroad industry. And it is because the railroads have courageously conformed to such standards throughout their operations that they are able to keep a "clear track ahead." The Okonite Company, Passaic, N. J.

THE BEST CABLE IS YOUR BEST POLICY

OKONITE SINCE 1878 *insulated wires and cables*

8618

A NATIONAL AGENCY FOR L. C. L.?

Transportation is a strange business. Find if you can another in which customers suggest that the producers should quit competing and form a national monopoly! That is precisely what happened a year ago—in what ought to be considered an historic moment—on September 15, 1949, when the Trans-Missouri-Kansas Shippers Advisory Board, by unanimous vote, urged on the railroads consideration of the creation of a national agency for the handling of less-carload traffic. Since that time, the board has passed its proposal around to the other 12 advisory boards in the country. At the T.-M.-K. board's most recent meeting in Kansas City, on September 28, it was reported that a majority of the boards had been heard from and that all of them—either by vote of membership or by opinion of their officers—agreed that the railroads ought to study the proposal.

There is nothing new about the idea. In his Coordinator's report on merchandise traffic, issued in 1936, the late Joseph B. Eastman recommended the establishment of two competing national agencies—railroad-owned—to take over all rail l.c.l., express and forwarder traffic. In 1940, at hearings before a Senate subcommittee examining the railroads' handling of merchandise traffic, the New York Central advocated pooling on a regional basis. It is not the novelty of the idea that makes it worthy of attention here, but the fact that its careful study by the railroads is so strongly urged by a sizeable segment of their customers.

Flying about in the air alongside the single agency idea are proposals which are less drastic and which seek to solve the same problems without eliminating inter-railroad competition altogether. That which seems to have the greatest measure of both carrier and customer support—relative to other projects—is a plan for requiring shippers to route merchandise only to the first break-bulk point, leaving it to the initial road to route beyond by the best combination of routes and services. For years some shippers have voluntarily permitted the originating carrier to do this, either from an indispositon to be bothered or on the theory that the freight agent knows better. Universal carrier routing would leave undisturbed the rivalry among roads serving common points for single-line business and for originating interline traffic. Objections to it include the fear that weaker roads would be discriminated against; the suspicion that the initial road might select poor service routes to avoid short-hauling itself; and the belief that larger shippers would be unable to dispatch pool cars in line with their own knowledge of service conditions.

Including carrier routing as an indispensable rule, but going considerably beyond in the restriction of normal inter-railroad competition, is the pooling of all traffic offered between specific points. One form, applicable to a grouping of diverse origins and/or destinations, contemplates allocation of all traffic between given points to so-called "best service routes," the participating carriers sharing traffic on that route which they are best able to serve. Thus, on l.c.l. traffic between New York and the

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Midwest, one route would handle all traffic to St. Louis and another all traffic to Chicago. This device was urged upon the carriers by the Office of Defense Transportation during World War II and received a limited degree of experimentation under the so-called Hartford Plan, whereby "unified routings" applied beyond the initial road. This version of pooling does not, of course, solve the problem of allocating traffic among all the roads able to participate between any two given points.

A long-discussed solution for distributing traffic between common points is the rotation pooling plan, by which combinations of carriers alternate in providing service, by days, weeks, or months. A limited scheme on this order is in actual existence between St. Louis and Los Angeles—the Wabash originating the traffic and giving it to the Santa Fe and the Union Pacific at Kansas City, on alternate days. But this arrangement is not quite what is contemplated by the proponents of rotation, because it applies only to such traffic as is tendered to the Wabash in the first instance.

A strong objection to widespread application of the rotation plan is that it is costly or impossible for railroads to cut or increase station and transfer personnel in accordance with alternated traffic loads. Many railroaders insist, too, that the situations which would lend themselves to rotation are too limited to make this plan useful on a national scale.

How Agency Would Operate

The proponents of a national agency assert that individual pooling arrangements—or even initial carrier routing on a universal scale—would not improve l.c.l. service in that area which today is the most unsatisfactory—between points *other than* big metropolitan centers. Only a full fledged universal agency, they insist, would raise the level of service on a general basis.

None of the latest proposals for a national agency goes into detail. It is assumed that an organization would be named by the railroads as the agency to which all railroad l.c.l. traffic would be tendered by the shipper and that it would make up merchandise cars, schedule and route them and deliver the freight at destination, very much as the railroad-owned Railway Express Agency now handles merchandise seeking passenger-train service. Inter-railroad competition would be eliminated entirely. The shippers would deal only with the agency which, in turn, would select the railroads for performance of the over-the-road service.

Establishment of this kind of service for all l.c.l. now moving would bring vexatious problems. For example: a sizeable portion of merchandise today is routed as it is, largely because of the advantageous location of particular freight stations at origin, destination or both. Many users of trap cars must, or prefer to, route l.c.l. via the road which furnishes the side-track service. These considerations outweigh over-the-road speed and directness. How would the intrusion of a national agency, with routes based on more general considerations, affect terminal costs? Again: some railroads make money on l.c.l. They say that their experience with R.E.A. suffers by comparison. Would the same losses accrue to the railroads through ownership of a national merchandise agency as they now sustain in carriage of express?

Advantages Claimed

The chief advantages claimed for a single agency for l.c.l. by most of its proponents are (1) that it would concentrate traffic by cars and by roads, thereby gaining the economies of volume movement; (2) that it would eliminate transfers and delays at junctions; and (3) that it would automatically route the traffic by the most direct, best-equipped routes.

It must come hard for shippers—long-time foes of pooling and consolidation—to come to the point of even suggesting that the railroads look into the matter of universal, national pooling of l.c.l. traffic. It is against their nature, their tradition, and their status. Yet a representative shippers advisory board has voted unanimously to urge the carriers to study the single agency idea; other boards support its views. One of the most distinguished traffic managers in the country goes further in being an outspoken advocate of a single agency right now. Recently a district traffic manager of one of the country's biggest chains of stores declared publicly that the railroads could do more for l.c.l. shippers in one year with a national agency than they could do in ten years as individual lines.

In full knowledge that the primary job of the railroads is to compete with the trucks—rather than with each other—for merchandise traffic, this paper is nevertheless reluctant to advocate any proposal which would abolish competition among the railroads themselves on so important a revenue producer as l.c.l. We think competition is healthy. We wonder if the notable improvements made by *individual* railroads described in our editorial and advertising pages would come as thick and as fast under unified operation. Furthermore, with multiple delivery privileges, quantity lot rates, extension of Modified Rule 10 and broadening of pool car privileges, the line of demarcation between less-carload and carload traffic is becoming dimmer every day. Why chop off the merchandise business of the railroads and remove it from normal freight channels?

TO CUT LOSS AND DAMAGE

With the defense effort being speeded up, more loss and damage prevention work by the railroads is not only desirable but necessary. However, is the proposal that the Association of American Railroads set up some "overall" prevention agency, backed by funds equal to 5 per cent of the annual freight claim bill, the way to go about achieving the results desired by carriers and shippers? As Al Smith used to say, "Let's look at the record."

Close study of the consolidated freight loss and damage figures (F.C.D.-1) for 1949 reveals, among other things, that about 34 per cent of the claim bill is from causes against which *only* individual carriers can take any action. For example, 23.2 per cent of the dollar amount of 1949 claim payments were made as a result of: Improper handling, 3.1 per cent; defective or unfit equipment, 5.0 per cent; temperature failures, 2.1 per cent; delay, 6.3 per cent; theft, 1.6 per cent; train accidents, 4.3 per cent; and error of employee, 0.8 per cent. It is obvious that the prevention effort against these causes is one that can be made effectively only by local supervision, which is not part of any prevention organization, viz., by yardmasters, freight agents, car foremen, and other supervisors. The other 10.7 per cent which can be eliminated by individual line action is carried on the F.C.D.-1 reports as "unlocated loss," i.e. freight apparently loaded in a car but not there when the car reached its destination. (The bulk of this loss was on grain, coal and coke.) What some overall prevention group could do about this, beyond what the individual lines can do, is a mystery.

The remaining portions of the claim bill, except for 0.7 per cent due to fires, marine accidents and catastrophes, are: "concealed loss and damage," 11.6 per cent; and "unlocated damage," 53.8 per cent. The first of these is a tough nut to crack, and only a heightened prevention effort to eliminate rough handling, defective equipment and shipper and receiver "sins" will cut this bill materially. The same is true of the unlocated damage. The place where a loss-prevention organization, *per se*, comes into this picture is by instructing shippers, receivers and carrier employees in loading, bracing, packing and so on. Cannot individual railroad prevention organizations do this job as cheaply as any overall agency can? (This endeavor should interest the shipping public, which in the long run must pay the railroads' bills.) Of course, if there is no prevention organization on a railroad, such work will not be done. We suspect, however, that shipper and connecting-carrier pressure can—and will—assure that all major railroads form adequate prevention organizations.

Taking all factors into consideration, why would not some such 7-point program as the following better meet the conditions which confront the railroads?—

1. Effective direction of the railroads' prevention effort by the National Freight Loss and Damage Prevention Committee of the Freight Claim Division of the Association of American Railroads. The efforts of this committee should not be spread too widely so that jobs once started could be carried through to completion.

2. A series of commodity tests on such freight as eggs, newsprint, and machinery.

3. Wider and faster dissemination of information, including the results of these tests.

4. Increased manpower on railroad prevention staffs, where feasible, and in the Freight Loading and Container Section, A.A.R.

5. More emphasis on placing of cars suitable for the shippers' commodities. This would necessitate devising some more simple method of commodity car inspection.

6. An increased supply of good cars through upgrading, purchase and more care in equipment placement.

7. More supervision on freighthouse platforms and in yards. (There probably is no industry where supervision is spread more thinly than on a railroad.) This, in many cases, does not mean employing more supervisors, but it does mean encouraging supervisors to get away from their desks for longer periods each day.

Such a program would cost money, but loss and damage costs money too. And it would be one of the best shipper relations efforts the railroads could make.

BENEFITS OF ATTENDING MEETINGS

A good example of the value of belonging to associations and attending meetings occurred at the recently concluded convention of the Coordinated Mechanical Associations. It occurred during the discussion of one of the papers of the Air Brake Association.

Without going into technical detail on the subject discussed, the gist of the matter was whether torque wrenches should be used to tighten certain cap screws in the air-brake system. One member said that if torque wrenches were used for assembly after repairs there would be no distortion of parts and no later road troubles. Another said that during severe winter weather leaks occurred on the road which had to be stopped to keep trains moving, and that conventional wrenches were required to provide the necessary pull. Proponents of the "do it the best way possible in the shop" theory claimed that if the work were properly done during repairs the leaks would not have occurred.

Further discussion brought out additional advantages and disadvantages of various types of wrenches. One point asserted against the torque wrench was that it is too slow for assembly line procedures, but this was countered by noting that the torque wrench proposed did not necessarily have to be a hand torque wrench; it could be power driven. Points were made about other power-driven wrenches, bringing out their advantages and disadvantages.

Does this seem like a small point to cite as an example of the value of convention attendance? Certainly it is not of a nature to revolutionize air-brake repairs. But it is the kind of problem, narrow and highly specialized though it is, where a slight improvement in technique—added to similar improvements in all the other little problems—accounts for progress in the efficiency and effectiveness of repair operations. It serves to emphasize the value to a railroad of having at least one representative at each association. Where else are there gathered under one roof so many experts on the daily problems confronting the railroads? Where else does a man have the opportunity to subject his own experience to as extensive a testing by the experience of others?

The North Western's Chicago fleet of 25 leased tractors, and 25 of its 50 leased trailers, lined up at Proviso freighthouse

North Western Improves P. U. & D. With Railroad-Controlled Fleet

The Chicago & North Western—like most other roads—used to farm out its pick-up and delivery contracts to various local truckers. Draying railroad freight was often a minor part of these truckers' duties; the railroad's interests were subordinate and the service suffered accordingly.

In December, 1947, the C. & N. W. entered into a lease arrangement with a truck rental firm for handling its pick-up and delivery freight at Milwaukee, Wis., based on the success of a small-scale set-up initiated a few months earlier at Highland Park, Ill., a Chicago suburb. The improvement in service for the shippers and the resultant favorable traffic trend caused the North Western to expand the lease operation, first to Waukegan, Ill., then to a major operation at Chicago, and to Omaha, Neb., Des Moines, Iowa, Eau Claire, Wis., and Madison and Mankato, Minn.

The Chicago operation involves the lease of 50 trailers, 25 tractors and one truck. All of the equipment is furnished by the leasing company, Motor Express, Inc., or Motor Express Rentals, both subsidiaries of the U. S. Truck Lines. They maintain and fuel the equipment and provide the operating personnel.

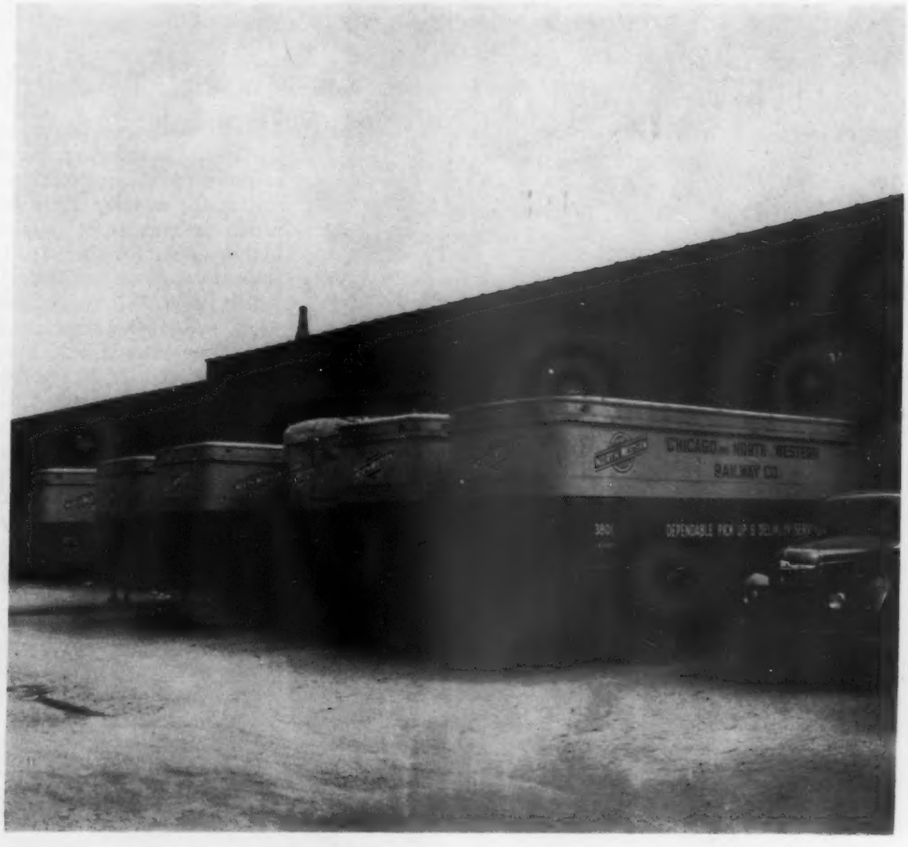
Although the drivers are on the lessor's payroll, they are regularly assigned to the C. & N. W. fleet, and, in the words of one operating man, "they are darn good North Western traffic representatives." Because they handle C. & N. W. freight exclusively, they solicit C. & N. W. exclusively. Traffic "pirating" sometimes practiced by truckers under contract for more than one carrier, is eliminated. Careful observance of packaging requirements by the drivers, and better handling of the freight, is credited with an important reduction in damage. One agent states that his claim account is down nearly 75 per cent since the leased operation was started at his station.

Since the trucks are in the exclusive service of the North Western, the road has greater control over their performance. Daily records are maintained indicating tonnage handled and hours worked. Because of the close supervision which the railroad is able to exercise, a maximum flexibility of dispatching and service is available. This, in turn, has resulted in more fluidity at freighthouses. The aim of the C. & N. W. is to forward all freight on the same evening if a pick-up has been requested by 2 p.m., and to deliver all freight on the morning of arrival.

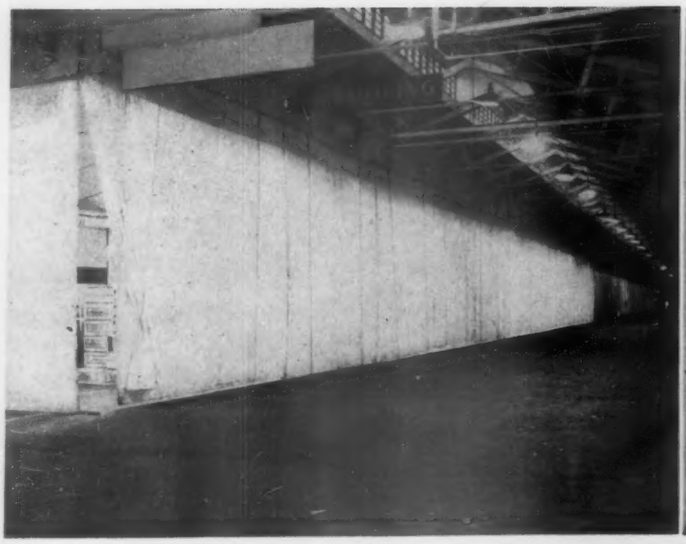
In addition to straight pick-up and delivery work which the trucks perform, they also provide substitute service between Chicago and Proviso on freight drayed by shippers to the city freighthouse at 16th and Jefferson streets, saving a full day's transit time. The trucks are also used for some mail handling, particularly during the Christmas rush.

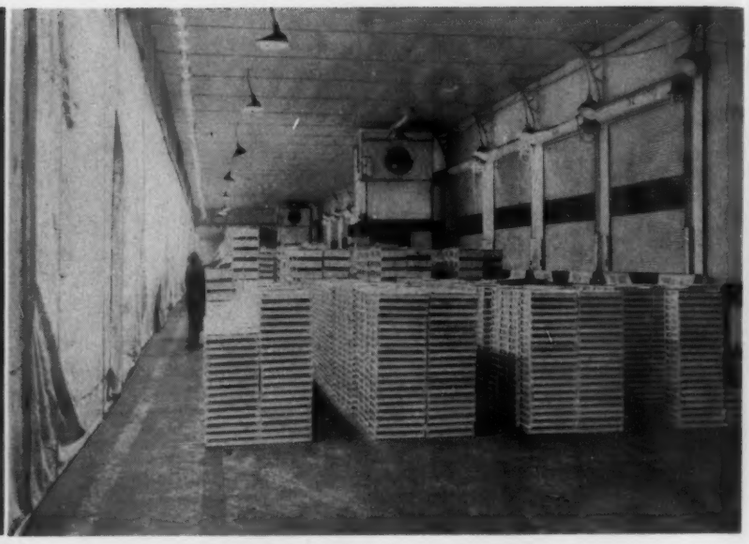
The service has been instituted at all principal stations where the per-ton cost of contract drayage has risen to the point where the lease arrangement can be economically justified.

A trailer is parked daily at Butler Brothers, Chicago—one of the North Western's larger shippers who enthusiastically endorses the road's new pick-up service — for loading at the shipper's convenience. A tractor, otherwise engaged during the day, will call for the loaded trailer after 2:30 p.m.



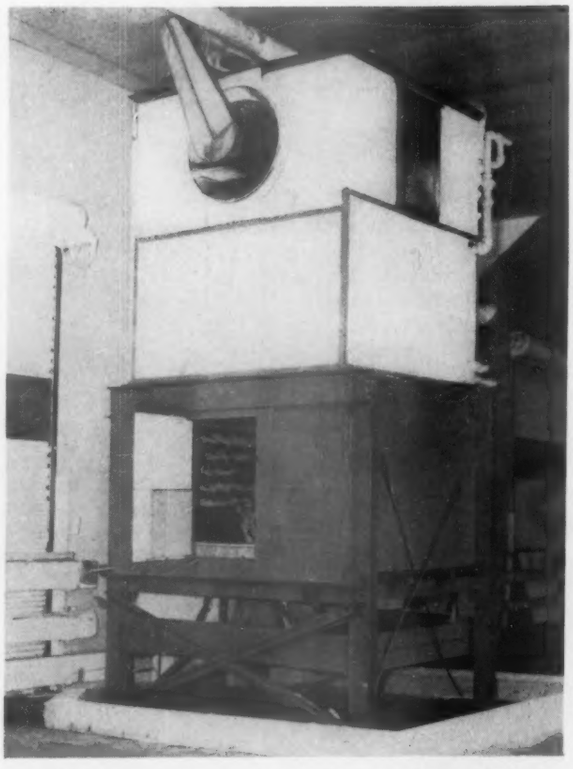
Six trailers are parked at 16th & Jefferson Street station near downtown Chicago to load freight drayed by shippers and transfer it to Proviso. This operation was formerly performed by trap car





Left—The entire soft fruit storage-display area at Pier 27 as seen from the outside. Some 700 ft. long by 42 ft. wide and 16 ft. high, the area is surrounded by canvas curtains, heavily weighted at the bottom so they will not blow out with every gust of air. Cool air blown into the inclosure is thus effectively confined. Right—A portion of the cooling room, which is roofed with plaster board. The upper portions of the blower units can be seen in the background

New Cooling Units Help P. R. R. Customers Get Higher Prices for Fruit

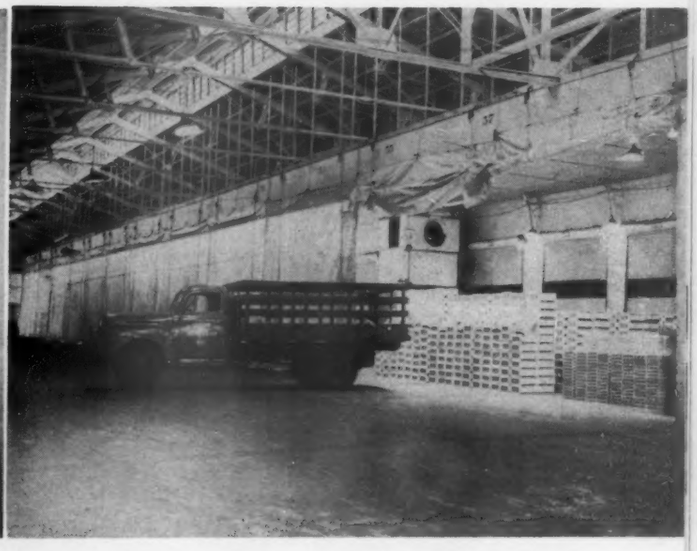


One of the blowers after addition of an ice chest and a pan, which serves as both a baffle to send the cool air out into the room and a collector of drippings from the melting ice. Water is drained off at rear of the unit and flows outside the shed and into the river. (Units are still used for heating during the winter)

The Pennsylvania, through its New York contractors, the Penn Stevedoring Corporation, has made available to those who ship "soft" perishables to that city a new system for keeping their freight cool while on display, which is making it possible for present users to get higher prices for their fruit. This service is available to shippers without additional charge. Installed at Pier 27, North River, this cooling room, roughly 700 ft. long by 42 ft. wide, has a capacity of 35 to 40 carloads of fruit. The Pennsylvania and Penn Stevedoring are readying the adjacent Pier 28 for similar usage. A spokesman for the contractor has stated that as soon as more shippers of the soft fruit realize the advantages of this additional cooling period in keeping the fruit from dehydrating and therefore begin to use the present facilities more intensively, others will be available to them.

Very little new equipment was needed to provide this new facility service to shippers. In addition to approximately 29,000 sq. ft. of plaster board and about 13,000 sq. ft. of heavy canvas to form curtains, it was necessary only to make additions of pans, baffles and ice chambers to the already installed blowers, which normally were used only during the winter for distributing heat over the pier. Pulleys and ropes were put in as needed so the curtains may be raised and lowered.

The six blowers can lower the temperature in the cooling area by about 20 deg. F. in two hours. Normally, blowers are started at 5 p.m. each evening, and soon after that the area is ready to receive the perishables.



Left—A prospective buyer of oranges is examining the fruit in the cooling room under highly favorable conditions. Right—The canvas curtains can be rolled up a section at a time so trucks can back up to one section of the cooling room. As soon as truckman has his load, the curtains will be dropped

Transportation a Team-Work Job

All factors in increased utilization need intensive follow-up—Selective carding to repair tracks urged

By C. R. MEGEE
Vice-Chairman, Car Service Division,
Association of American Railroads

Every form of transportation has a definite place in our national economy, but railroads are the nation's largest carrier—the only all-around integrated carrier—handling everything offered—passengers, baggage, express, mail and freight.

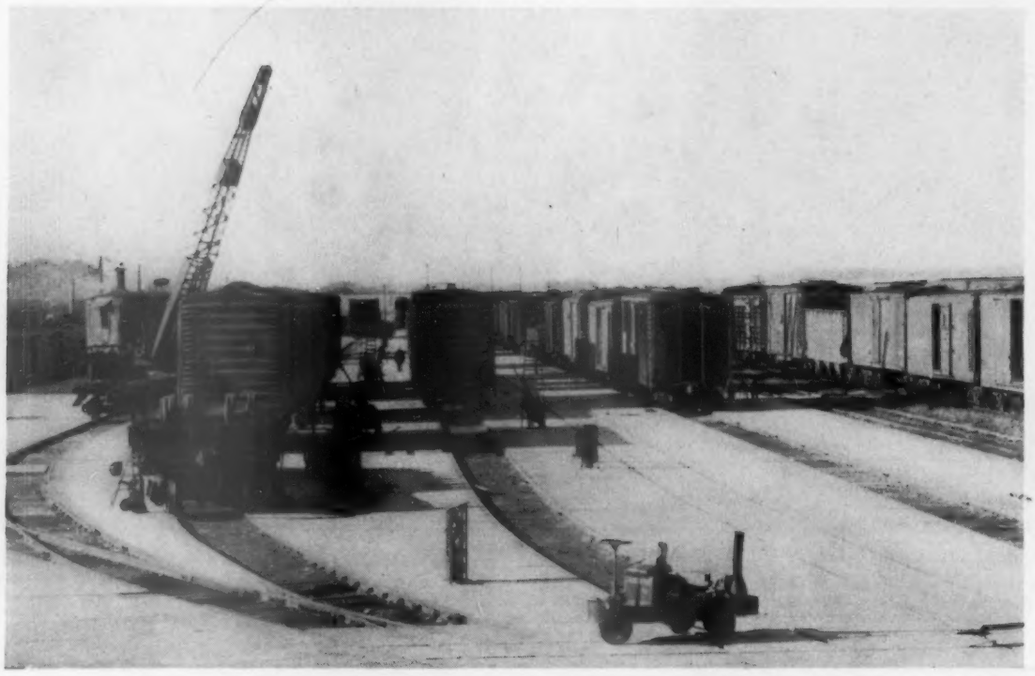
Problems of car foremen and the Car Service Division are closely related. We are all working for the same objective, namely, transportation in quality and quantity sufficient to meet the demands of commerce. Our jobs carry a greater sense of security only if the railroad industry is able to accept all the traffic offered by its customers and transport it economically and satisfactorily. The car department on a railroad has the responsibility of repair and maintenance of equipment while ours of the Car Service Division is that of supervising car handling and distribution between districts and among the several railroads of the districts.

The country is now in the midst of a serious shortage of freight cars, more especially box, gondolas, hoppers and flats. Since the last week in June, the United States has been undergoing a transition from peacetime economy to the edge of a national emergency—a situation not of our choosing but forced by conditions beyond our control. All of us fervently hope that international law and order will be restored shortly. Whatever comes, the vital importance of the most efficient performance possible by the railroads stands as a challenge to every employee or person connected with the industry. This international situation has accentuated the already heavily strained car supply.

This article is an abstract of a paper presented at the September 11 meeting of the Car Foremen's Association of Chicago.

Railroads Could Not Foresee Shortages

Railroads could hardly have been expected to foresee the present international situation or the present extremely high level of car demand and traffic a year ago any better than could industry in general have been expected to foresee these developments. Last year the business skies were somewhat cloudy. Many industries were reported to have deferred or temporarily shelved well developed plans for expansion, and railroads were no exception. Railroad traffic in 1949 decreased approximately



Cars should be selected for the shop tracks "which can be put back in active transportation service with the least expenditure of man-hours and repair-track days"

111 billion ton-miles, or a drop of 17.5 per cent compared with 1948, the greatest decrease ever experienced in one year. A year ago, on September 1, the railroads were reporting a considerable daily surplus of equipment.

Unfortunately, orders for new cars, which had averaged about 100,000 units yearly in 1947 and 1948, dropped sharply to about 9,600 units in 1949, bringing the number of cars on order and undelivered down to 14,300 on December 1, 1949, a low for a decade. With railroad net earnings at a very low point, with continued demands by labor, the majority of the economic crystal gazers were gloomy about the prospects of business and rail traffic in 1950.

Steps have recently been taken to increase freight-car ownership substantially; the railroads have embarked upon a program to increase the total ownership of freight cars by approximately 122,000, representing over half a billion dollars' investment. New freight cars, just as in the case of corn or wheat crops, do not come into actual being over night after orders are placed with the builders. The very generous orders which have been placed and those to come in the future months for new cars will not result in any great increase in the monthly output for some time to come. In the meantime the only way in which the railroad industry can satisfactorily meet the demands of its customers for more transportation is to increase the efficiency of distribution and use of cars now in existence.

Many Ways to Intensify Car Use

There are many ways for getting more efficient utilization from freight cars. One of the most important is the prompt repairing of "bad orders." The railroads have pledged themselves to a general program of reducing the number of unserviceable freight cars to a level of 5 per cent of the ownership of any class. Car foremen perhaps know much better than can anyone else the extra effort that must be put forth to reach this goal. Not only must repairing and upgrading be accomplished as promptly as possible after the cars reach the repair tracks, but every effort must be made to switch cars to and from repair tracks promptly and give an adequate spotting of cars on which to work.

On August 1, 1948, the third postwar year, the shortages of equipment were not too far different from that which prevails today. Bad order cars totalled 84,606 of all classes, exclusive of tanks and privately owned refrigerators. One year later, largely due to the atmospheric cloudiness, the number of bad order cars approximated 125,000, and on August 1 of the current year about 123,000. If we could have today the same situation as prevailed in 1948, it would mean an addition of about 40,000 serviceable freight cars.

Selective Placing to Shop Tracks

In my own opinion considerable attention should be given to lining up a program of selective placing to shop tracks of the cars which can be repaired and got back into active transportation service with the least expenditure of man-hours and repair-track days. Perhaps some roads may already have a program set up through selective or distinctive carding which will indicate to the yard forces those cars which should be spotted in preference to the repair tracks, these being, in most cases, (1) loads of all types, and (2) empties of the types most in demand and which can be repaired by the least expenditure of man-hours, followed by empties of other types which can be repaired quickly. This selective combing cannot be accomplished, of course, by either the car department or the yard department alone. It must be a cooperative effort rightly designed and efficiently operated.

There are many additional opportunities for increased efficiency in the usage of freight cars, among which are

heavier loading, prompt loading and unloading (this applies to company material as well as commercial shipments), the avoidance of delays in terminal and road haul movement, and complete unloading and cleaning of cars at freighthouses, stores and other company operations so that they will be immediately available for other loading. Many of these same avenues toward car efficiency are available to shippers and receivers, including the need for prompt loading and unloading, for prompt billing, for loading as heavy as practicable, for complete unloading or cleaning and for loading to, via or toward the owner's rails.

Promptness in Ordering Materials

All car department officers know that when it is necessary to order material from foreign roads such orders should be placed promptly and by the fastest practicable method of communication; that in furnishing repair material to a foreign line on order every effort should be made to ship promptly and route it so that it will reach the repair spot at the earliest practicable date. During the early postwar years, 1946 and 1947, there was, for a time, a considerable accumulation of l.c.l. cars standing out at freighthouses and transfers in almost all parts of the country. Many shipments of car-repair material were tied up in these accumulated cars, delaying delivery at the point where required.

The greatest shortage of any type of equipment today is of plain box and especially high-grade box cars suitable for loading such commodities as flour, feed, sugar, tin plate, etc. Certainly high-grade box cars should not be supplied for loading commodities which can be safely loaded in rough-freight box cars of lower than the A and B class.

The ownership by Class I railroads today approximates 1,721,000 cars. This represents, in round figures, about $4¼ billion in book value. Based upon reproduction cost at today's prices, that would mean probably $8 billion, somewhere about 20 per cent of the total capitalization of the American railroads. Certainly there is a very definite responsibility to get the most out of each serviceable unit. Statistics will support a figure of between $10 and $12 as the money value of a car per day. That is, in times of such demand as we are now experiencing, every day that a car is not doing its full duty deprives the owner or the road on which it locates of $10 to $12 in revenue. This may properly be called the earning power of a freight car. We do not have to look very far to find hundreds of lost car-days in almost every terminal and in many cases in relatively small cities and towns.

The Car Service Division has a field force of about 65 men who are constantly checking one road or another, one industry or another throughout the country. Many reports are reaching our desks even in this period of acute shortage which show serious delays. I could name instance after instance. Friday of last week, 43 coal cars were found to have been standing 10 days on a blind siding on one of the coal-originating roads, yet that road had been reporting a shortage during the week. On another road 36 box cars were found under load awaiting billing with detention up to 9 days per car. The shipper had risked heavy demurrage charges by loading up cars in anticipation of vacation shut-down of the plant so that they could maintain their shipping schedules—a case of using freight cars as warehouses and a wasteful placement of empty cars in advance of actual needs.

Perhaps there never was a time when cars were more urgently needed than today. Complaints are being received from railroad customers throughout the country; that is, from California, Oregon and Washington to the State of Maine; from the Canadian boundary to the Gulf of Mexico. The supply is just not equal to the demands. The shortages have been spread in what appears to be the most equitable manner among railroads and that will continue to be the program of the Car Service Division, acting as a neutral agency for all of the roads.

Days in yards are lost car-days

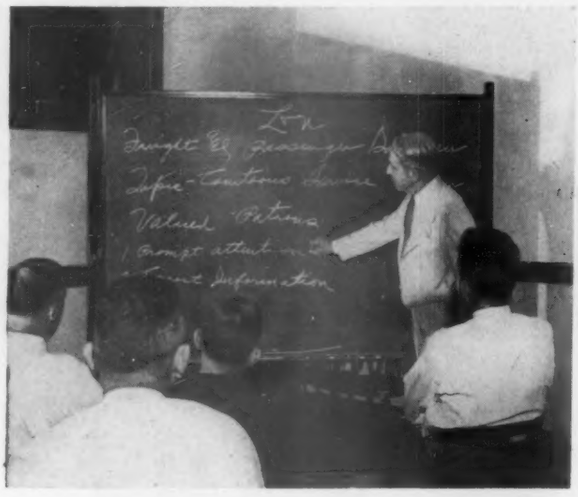
L. & N. freight and passenger traffic men attended a sales institute at New Orleans, La.

Three "S's" for Traffic Men on the L. & N.

A total of 226 Louisville & Nashville freight and passenger traffic men have taken a fresh and penetrating look at the three "S's" of their business—solicitation, selling and service—since November, 1949, when the first "Sales Institute" was held. Each of the institutes, which totaled 20 hours in length, comprised largely a series of participation-panel conferences on such themes as:

(1) "Why patrons buy?"
(2) "What does the patron want to know?"
(3) "What does the patron expect personally?"
(4) "How patrons differ"
(5) "How to handle patrons"
(6) "Planning the L. & N. sales presentation"
(7) "Sources of prospective patrons"
(8) "The essentials of a good approach"
(9) "Dealing with objections"
(10) "The interrelation of the L. & N.'s traffic and operating departments."

Traffic men themselves came in for some scrutiny, as well as present and prospective customers of the road, on the theory that the railroad salesman should pay attention to the biblical admonition, "Know thyself."



E. G. Jones, L. & N. district passenger agent, at Louisville, Ky., acts as conference leader for "sales training institute"

Sales Institutes stem from the railroad's extensive three-dimensional training program which was given initial impetus in March, 1947. An overall training program, it was originally designed for three classes of participants: (1) training of officers to serve as group leaders in other phases of the program; (2) training of supervisors in all departments of the railroad in human relations and in knowledge of their business; and (3), training of public-contact employees. This overall program has continued and developed. Now titled "Living Better," and aimed directly at the railroad employee's self-interest, it has been taken, in its most recent phase, by a total of 1,143 employees since January, 1950.

The Sales Institute program is but a logical extension of this overall training principle revised to meet the special needs of traffic salesmen. In short, whereas the chief subject of attention in the general training program is the railroad employee himself, and the aim, a smooth-running organization, the plan of the Sales Institute is to analyze, dissect and cultivate the railroad's customers.

Eleven of the total of 15 groups participating were on-line men, who met once-a-week for a period of ten weeks, in Atlanta, Ga., Birmingham, Ala., Cincinnati, Ohio, Evansville, Ind., Knoxville, Tenn., Louisville, Ky., Nashville, Tenn., and Memphis, New Orleans, La., Mobile, Ala., and St. Louis, Mo., respectively. Two additional groups followed the same ten-weeks' pattern, but comprised off-line personnel, meeting at New York and Chicago, respectively. The final two groups compressed the Sales Institute into three all-day sessions, held at Detroit, Mich., and New Orleans, La., respectively, in the spring of this year. They were attended by representatives from distant and widely separated off-line points. The meeting at New Orleans, for example, drew its "enrollment" from Jacksonville, Fla., Tampa, Miami and Orlando, Kansas City, Mo., Little Rock, Ark., and Dallas, Tex., and Houston.

The Sales Institutes were conducted under the general direction of George C. Howard, director of personnel. The L. & N. announces that similar training will continue to be offered from time to time to its off- and on-line traffic staff, with special attention to the newest members of the road's sales force.

"Birdcage" Containers for L. C. L.

Southern Pacific uses 2,500 for cutting costs and damage

Some 2,500 plywood "palletized containers" in use on Pacific Lines of the Southern Pacific have cut manual handling of a wide range of less-carload shipments to the bare minimum.* Their use has been so successful that the road is working toward doubling the number available as rapidly as the resources of its West Oakland (Cal.) mill will permit.

Weighing approximately 320 lb., each container is 42 in. wide, 45 in. long and 6 ft. high—which dimensions are determined by the width and height of the average highway semi-trailer in pick-up and delivery and coordinated over-the-road service, since one of the chief advantages of the container is to make more efficient the transshipment of l.c.l. between trucks and rail cars. Sides and backs are constructed of 5/16 in. weather-resistant plywood, on a frame of welded angle iron. Floors are of galvanized iron sheeting, and the container stands on shoes of ⅜ in. by 2 in. iron, 4⅜ in. high. Because a hinged door would interfere with loading operations in restricted positions (like the interior of a semi-trailer), the gate is affixed to the container from top hangers, with members secured by U-bars. During loading the entire door is removed. Construction and dimensions of the container are shown in the accompanying sketches of front and side elevations.

Maintenance Simple

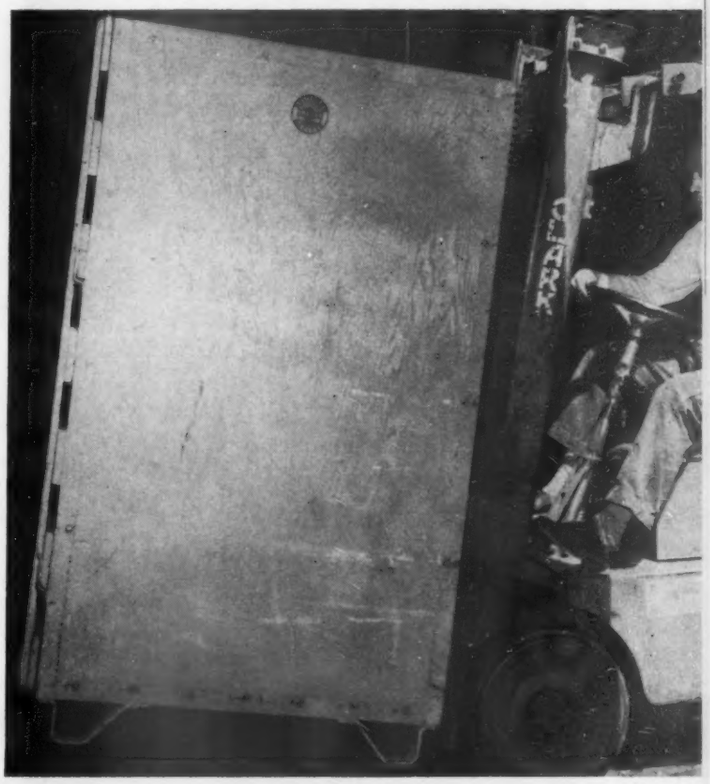
The containers are made in the company mill at a cost of about $70 each and, according to the road, require little or no maintenance. Container No. 1 has been in continuous service since 1947. Doors are about the only part sustaining damage by use; 25 extra ones have been spread around big stations on the road so as not to tie up containers for "bad-order" gates.

The containers are numbered and are confined to the S.P. system, Northwestern Pacific and the Pacific Electric. Although no record is kept of individual movements, large stations furnish a daily report showing number received, loaded out and on hand, to the office of the manager of freight protection, merchandise and station service at San Francisco, who is thus able to equalize distribution and obtain maximum use. By the establishment of two-way or three-way "channels" between stations, the containers rarely move empty.

While the maximum load limit for the palletized containers is 3,500 lb., the average lading runs about 1,500 lb. Ten containers can be accommodated in a 22-ft. trailer. A large proportion of the pick-up and delivery semi-trailers operated by the S.P.'s subsidiary, Pacific Motor Trucking Company, are equipped with channel-iron runways lengthwise in the trailer floor, in which the shoes of the containers can be slid and made secure.

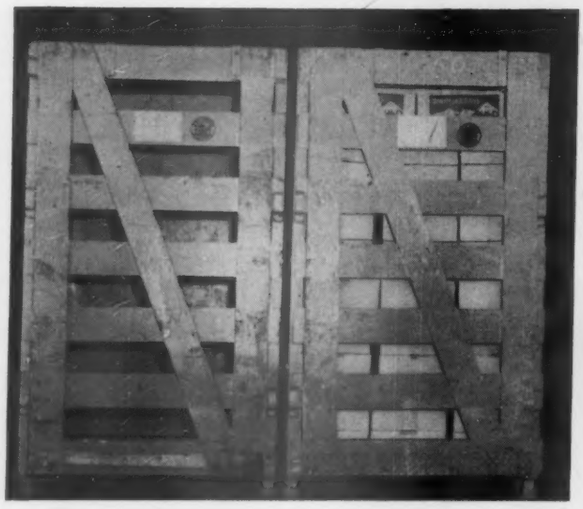
Some 20 of the containers can be loaded into a standard S.P. "overnight" merchandise car, although, in most

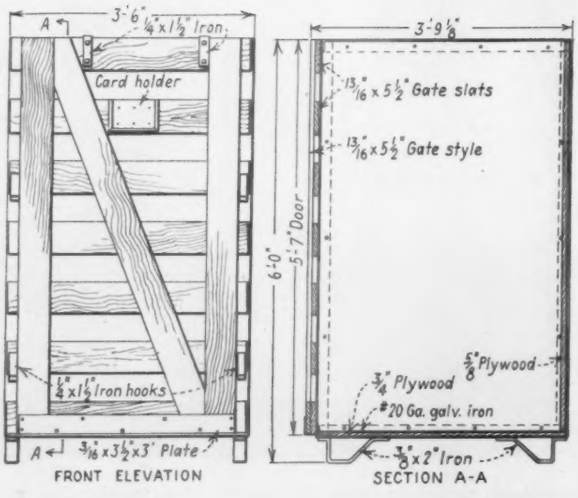
*The institution of this service was described briefly in **Railway Age** of July 3, 1948.



Palletized containers, plus lift trucks, give merchandise a fast, unit-tight ride on the S.P.

Containers make for a neat and efficient freighthouse





Above left—Doors are simple, sturdy and completely removable

Above right—Channel irons in truck trailer floors make for smooth loading and a secure ride

Left—Front and side elevations of S.P.'s $70 plywood container

Below—Palletized containers take the curse out of loose package shipments

cases, the containers are loaded together with other freight not adaptable to unit handling. Thus, for example, mattresses go well on top of the containers, and pipe in between. In mixed loads, the containers are frequently paired, to form excellent bulkheads. Positioned lengthwise in the car, they cannot topple, and in the event of impact, move on their shoes to make a "floating load."

All stations receiving containers are assigned either fork-lift trucks or hand hydraulic pallet lifts in sufficient numbers to deal with them. In handling the containers, lift-truck operators are instructed to operate their lifts in the reverse position, whenever possible, and to make only short and unavoidable moves in the forward direction.

Unit Handling Throughout

The aim of the container operation is to consolidate shipments of otherwise loose packages and pieces for as great a portion of each movement as possible. Freight is loaded into containers on the highway trailer at consignees' doors. At the freight station, the container is moved by lift truck to the merchandise car. The reverse operation is performed at destination.

In addition to loose package goods, the following commodities, among others, have been successfully handled in the "birdcages":

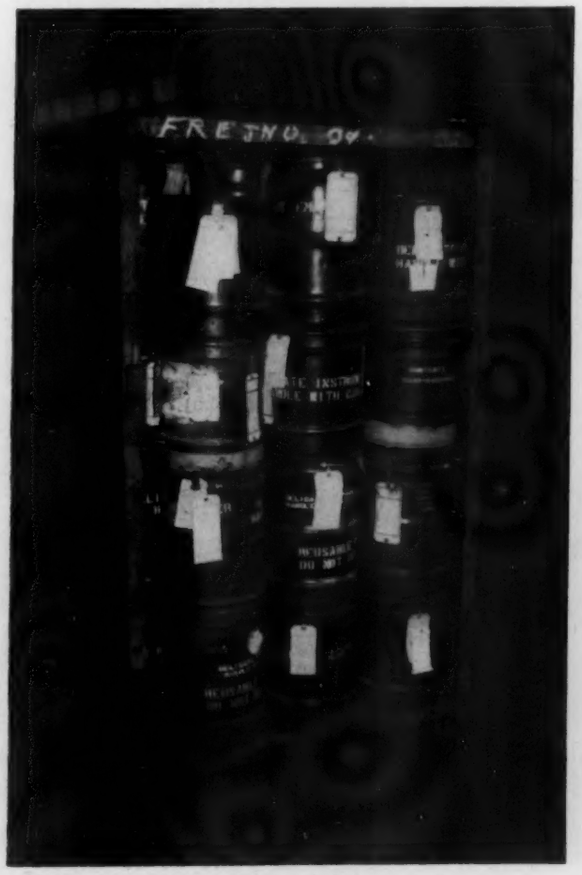
(1) Bulk goods in burlap or paper sacks
(2) Enameled sinks, lavatories and other fixtures of similar nature
(3) Well casing
(4) Roofing paper, including shingles
(5) Commodities in cans, such as paint, etc.
(6) Iron pipe fittings, both sacked and loose
(7) Wet storage batteries (loaded 3 tiers high in container by separating each tier with portable wooden platform).

Use of palletized containers has brought: (1) Faster and more economical handling at stations and transfer points; (2) reduced loading and unloading time of trucks in p. & d. and linehaul services; and (3) drastic reduction in loss and damage.

Normally it requires four employees, one to two hours, to load or unload individual packages in or out of a 22-ft. semi-trailer. With container and fork lift truck, one employee can accomplish the same task in about 30 minutes. To unload individual pieces from a merchandise car used to take five laborers from 1 hour, 30 minutes, to 3 hours; now one operator and lift truck can unload and handle 20 containers to different locations about the freight sheds in an hour. At one of its larger terminals, the S.P. recently produced a daily saving of $181 by increasing container operations to about 90 units a day and, by using burden carrying speed trucks.

An accompanying advantage of container handling is a marked reduction in the standby time of p. & d. and substitute service trucks at freight stations.

For securing merchandise which does not lend itself to container handling, the S.P. customarily uses simple wooden bulkheads. Although they are marked with the railroad's initials and the name of the station where made, the bulkheads are considered "expendable." Nevertheless, returns to original station are remarkably good.



A wide range of commodities are adapted to the container

Supervisory Agents Aid Service

Seaboard organization studies ways and means for improving freight handling, particularly in local freighthouses

For more than 30 years, the Seaboard Air Line Railroad Freight Agents' Association has been studying ways of improving freight service to the shippers and acting upon the methods that prove best under test. While this organization has been fostered by the general officers, it has maintained, throughout its history, the character of a spontaneous association and it has been run entirely by the agents themselves.

The association was formed in 1919 and only supervisory and assistant supervisory agents are eligible for membership, but officers of the Seaboard and its subsidiary lines may hold honorary membership. The objects of the association have been constant throughout its existence—to afford a better opportunity for interchange of opinions and ideas between agents for the improvement of the service and to familiarize each member with conditions existing at ports, terminals and junctions throughout the system. Since each supervisory agent sees only a relatively small part of the entire railway in the course of his normal duties, this latter purpose has been found to be most valuable. The annual meetings are held at various important points on the system, affording an opportunity for personal inspection and a greater grasp of the problems of other sections of the railway.

Continuing Activity

As a result of long experience, the following standing committees function throughout the year:

Accounting, Credit and Overcharge Claims
Car Handling
Traffic and Public Relations
Safety, Fire Prevention and Sanitation
Station Expenses
Freight Claim Prevention

Each committee is headed by a system chairman and includes representatives from each of the operating divisions on the railway. In addition to issuing bulletins, papers and progress reports, a spirit of friendly rivalry is created by contests, such as the most business secured through employee solicitation; the most tons handled per labor-hour; the most tons handled per loss and damage exception; the least number of injuries per station man hour and other similar contests. The superintendent of station operations, who also heads the freight claim prevention department, takes an active part in promoting these contests, as well as in the general work of the association.

Annual Meetings

The executive committee, consisting of elected members of the association, spends many hours in planning the programs of the annual meetings. The importance of such meetings is indicated by the fact that Legh R. Powell, Jr., president of the railway, has never missed one of the annual meetings since he has headed the Seaboard and invariably opens the meeting with a brief and pertinent address. At these sessions, the chairmen of each committee present the reports and each subject is thoroughly discussed. An important part of the program is the presentation and discussion of new ideas and objectives for study during the ensuing year. Each year, a number of ideas originated and developed by the association are put into general practice on the Seaboard after their effectiveness has been determined and many such ideas are included in the instructions governing agency operation.

The 1950 meeting was held at West Palm Beach, Fla., and during the course of the two-day session, in addition to the foregoing procedure, the meeting was addressed by a wide variety of officers of the railway. These were all brief talks, but their scope is indicated by the list of officers who spoke. Confining their remarks almost entirely to agency operation, the following officers were on the program: president; assistant to president; general passenger traffic manager; general manager; assistant general manager; chief mechanical officer; general purchasing agent; assistant vice-president; superintendent of station operations; freight claim agent; auditor of revenue; assistant treasurer; superintendent of transportation and superintendent of car service.

A Shipper Asks— "Why Not Tell Public?"

"Because it is the first time I have had them all together, I want to call the attention of the operating men to their absolutely putrid public relations with their help. I came out to Denver a year ago when that argument was so hot on the Taft-Hartley Act, and a trainman was talking it over, and I said, I'll have some fun with you. I started to ask a few questions, and he didn't know the answers. I said, 'Brother, did you ever read the Taft-Hartley Act?'

"He said, 'No.'

"I said, 'All you know is one side.'

"That fellow didn't know what was in that Taft-Hartley Act and was condemning it merely on the assertion of some labor leader.

"You don't tell the public how much you are paying these trainmen. When I hear of some of those wages, I am astounded. I had a druggist tell me that his son makes more money as a fireman on the Great Northern railroad than he does in his business. And yet they ask for more money. Why not give yourselves some more publicity on that? Why be so secretive as to what you are doing? Let the public know. We will back you up. Don't sit there and hide it."

—From reporter's notes of extemporaneous remarks, at a meeting of the Central Western Shippers Advisory Board, by General Chairman W. H. Marriott, traffic manager, Sioux City (Iowa), Grain Exchange.

Many improved freight handling methods have been originated by the Seaboard Freight Agents' Association

The local freight office of the Seaboard at Birmingham, Ala., where methods developed by the Freight Agents' Association are in use

California Has Had "Quantity"

A look at minimum-rate scales based on lowest-cost carrier operations shows that rates based on quantity loadings, with intrastate application in California, in effect since 1939, have enabled the railroads in that state to compete—rate-wise at least—with motor trucks.

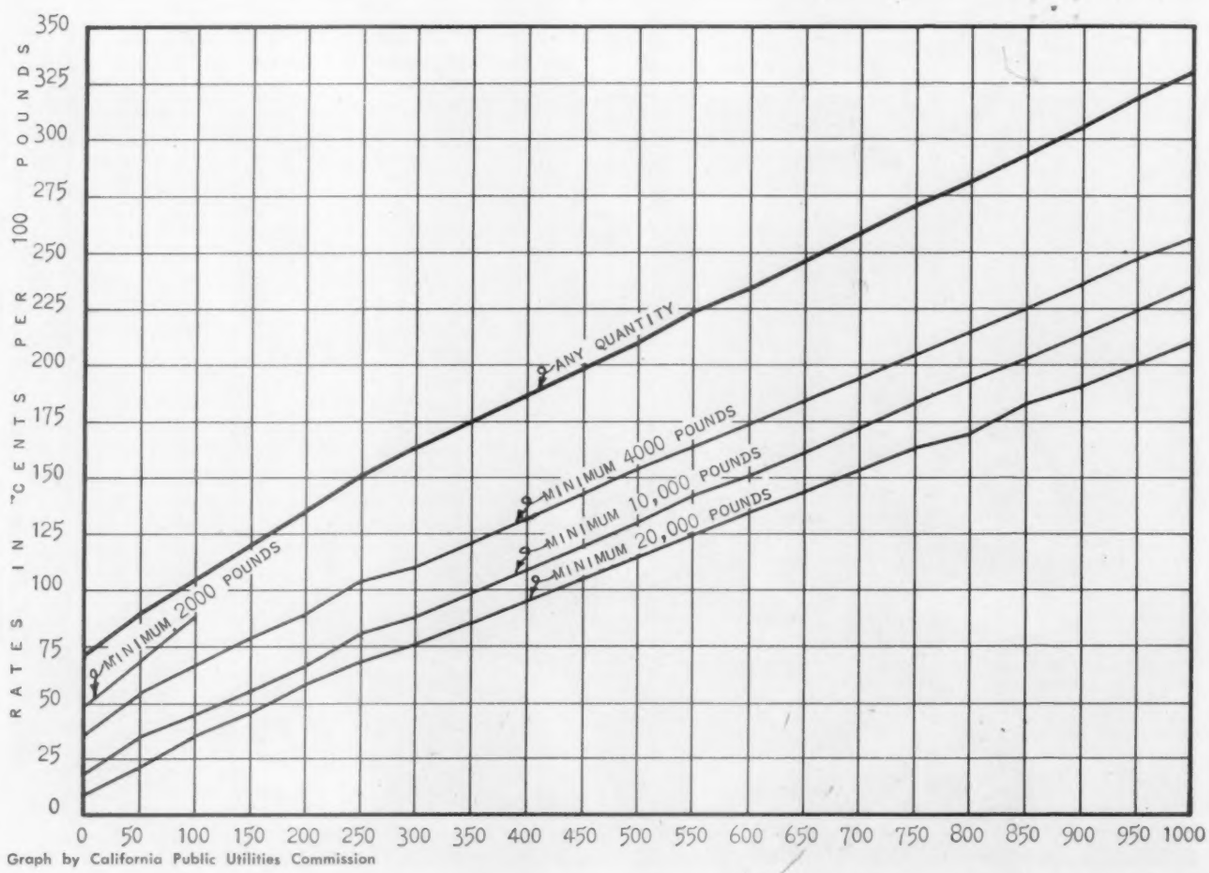
California is a big state and intrastate traffic is important to all carriers. Heavy long-distance trucking, of the type injurious to the railroads, got started in California sooner than in most other states. It is noteworthy that, as early as 1938, the truckers received more than 70 per cent of the total intrastate freight revenues of highway and rail carriers combined. By 1948 the motor carriers had increased their proportion to more than 75 per cent.

With this early rise of the truck to importance, it is difficult—if not impossible—to evaluate the effect of quantity rates in holding traffic to the rails. Nevertheless, the reasoning behind the establishment of California's sliding-scale rates, based on graduated minima, may prove noteworthy, in the light of current interest by the eastern railroads in intermediate, or quantity rates (see *Railway Age* of June 17, page 38), a subject which is reported also to be under active scrutiny in the Southeast.

Equality of Rate Competition

Intrastate rates for freight in less-carload quantities in California have been based upon specific motor carrier rates set forth by the state Public Utilities Commission in Highway Carriers' Tariff No. 2, effective since February, 1939 (decision No. 31606 in case No. 4246). The establishment of minimum rates for competing carriers was in answer to the problem of "equalization of competitive conditions by the several forms of for-hire transportation."

At the time the original finding was made the regulatory body held that "California is suffering from an overabundance of transportation" and that as long as this situation existed "the public cannot be given the advantage of rates nearly as low as they could enjoy were the carriers able to obtain full use of their equipment and,



Graph by California Public Utilities Commission

The effect of varying minima is shown in these progressions of minimum first-class, less-truckload rates, applicable in California as of January 1, 1949. The horizontal scale at bottom shows miles

Rates Since 1939

thus, reduce their unit costs." This important decision went on to establish the principle that "the logical basis for equalizing competitive conditions between the different forms of transportation is to determine which is the rate-making type of carrier in each field of transportation, to fix minimum rates for carriers of that type, and then to permit competitive forms of transport to meet on equal terms the 'going' rates set by such rate-making type of carrier."

Since the truck was believed to be the low-cost carrier for less-carload transportation, the motor carrier rates promulgated by the commission were ordered as the minima for less-carload transportation by rail or water as well. Railroad carload rates were not ordered changed, except that the railroads were urged to—and did—voluntarily remove "maladjustments" resulting from "dog-eat-dog" competition prior to state regulation of motor carrier rates. Furthermore, motor carriers were required to use existing railroad carload rates, in whole or in combination, for shipments of truckload quantities or more, as an alternative to the motor carrier rates set down by the commission, whenever such rates produced lower aggregate charges for the same transportation.

The commission's policy, in short, was to relate minimum rates to the transportation experience of the most economical type of carrier and to permit other carriers to meet them. The California commission has emphasized the importance of minimum rates clear back to 1912, when it was established. Long before the Interstate Commerce Commission accepted the principle of minimum rates the state's public utility act clearly recognized that rates might be unreasonable by being too low as well as by being too high.

As noted, motor transportation became important in California earlier than elsewhere in the country. In 1917 the state legislature enacted the Auto Stage & Truck Transportation Act, by which it was intended that buses and trucks on regular route operations be subjected to substantially the same regulation as railroads and water lines. This act was subsequently challenged in the courts and weakened, so that a large body of important carriers remained unregulated. Their growth and the unsettled economic conditions of the depression prompted the state commission, in 1932, to recommend the enactment of effective truck regulation. If this were politically impossible, the commission said, existing regulation should "be withdrawn from all and the law of the jungle be given full and equal play." The former goal—regulation of motor carriers—was accomplished in 1935. A few years later, on its own motion, the commission set about to establish minimum rates for motor carriers, which were made effective February 15, 1939.

Graduated Minima

Since their establishment, the railroads have used them as the basis of their own less-carload rates, which are set forth currently in Pacific Freight Tariff Bureau Tariff No. 255-D, issued February 8, 1946. A significant characteristic of the state-imposed rates is a provision for charges varying in inverse proportion to weight of shipment—in short, the principle of volume, intermediate, or quantity rates, narrowing the gap between orthodox l.c.l. and carload rates.

Less carload rates in California are based on truck costs and highway mileages

As described in a recent study of the Public Utilities Commission: "Class rates in Highway Carriers' Tariff No. 2 are provided for the ten basic classes (1, 2, 3, 4, 5, A, B, C, D, and E). Rates for the first four classes are graduated under five separate scales, the minimum weights being designated as 'any-quantity,' 2,000 lb., 4,000 lb., 10,000 lb. and 20,000 lb. The 2,000-lb. rates blend into the any-quantity rates at 100 constructive miles, and fade out thereafter. The other scales are extended to all distances up to 1,200 miles. Rates for classes 5 to E, inclusive, are set forth in a single scale, inasmuch as the applicable minimum weights are those provided in the Western Classification, the Exception Sheet and the tariff itself."[1]

During hearings on the establishment of minimum rates a large body of highway carriers insisted that a greater number of rate brackets were required. They argued that the most severe competition for common carriers came from private, or "proprietary," trucking, and that the most effective way to cope with it was to provide a large number of weight brackets, thus, according to the commission's report, "achieving rates which would be closely comparable to the cost of performing the service within each particular bracket."

The railroads, on the other hand, urged that the number of weight brackets be reduced, on the ground that small shippers would be prejudiced because they could not take advantage of the quantity rates. [Some railroad rate men have been changing their minds on the whole subject of "prejudice," in view of the fact that *all other* forms of transportation discriminate in favor of large shippers and that, further, only big shippers can afford private fleets of boats and trucks.—EDITOR.]

The reasoning behind the commission's eventual es-

[1] "Study of Economic Considerations in the Establishment of Minimum Transportation Rates and Related Problems, Vol. II," by J. A. McCunniff, senior transportation rate expert, June 20, 1949, page 65.

Standard Oil Co. (N. J.). Photo by Libsohn

tablishment of graduated minima reflected cost data of record that "the cost per 100 lb. of transporting property by motor vehicle varies with, among other factors, the quantity tendered for transportation as a single shipment. It is this fact which led to the establishment of variations in the minimum rates according to the quantity tendered for transportation. To the extent that rates are to be related to costs, there must be a variance in the unit rates according to the gross weight of the shipment. In quantities less than full truckloads there appear to be no necessary or inevitable weight-breaking points at which cost variations should be reflected in the rates. In practice, of course, minor cost differences must be averaged if resulting rates are to be suitable for practical application."

Decision on the number of weight brackets to be employed, according to the commission's staff study, "is essentially a matter of opinion, discretion and judgment informed as to traffic flow and costs. An excessive number of brackets unduly complicates the rate structure, making tariff publication, rate quotation, and charge computation unnecessarily burdensome to all concerned. An insufficient number of brackets, although simplifying the rate structure, unduly disturbs the relationship between rates and costs, thus favoring some traffic and prejudicing other traffic, and tending to force the latter to proprietary vehicles. The selection of weight brackets in tariff construction is, therefore, a matter of compromise between extremes."

What the Minimum Rates Are

The minimum motor carrier rates now in effect in California are based on the same structure as originally promulgated in 1939, except that the rate level has been affected by postwar general rate increases. Theoretically, of course, since they were *minimum* rates, it should not have been necessary to raise them to meet the carriers' demands for higher revenues to meet inflated costs. But the motor carriers attached such great importance to the "tendency of minimum rates to become the going rates," that the commission decided to raise them. The minimum rate structure in California is described by the commission study as follows:

"Minimum rates published in Highway Carriers' Tariff No. 2 consist of (1) mileage class rates, (2) point-to-point class rates, (3) mileage commodity rates, and (4) point-to-point commodity rates.

"Minimum class rates are published for ten classes, corresponding to the principal ratings named in the railroads' Western Classification, viz.: classes 1, 2, 3, 4, 5, and A, B, C, D and E. Five separate rate scales are provided. Rates for classes 1 to 4 are provided in any quantity, 4,000, 10,000, and 20,000 lb. minimum weight brackets. An additional scale for these classes is provided for distances of 100 miles or less, subject to a minimum weight of 2,000 lb. These rates apply for less-carload traffic. The 10,000 and 20,000-lb. rates for classes 1 through 4 and rates provided for classes 5 to E apply for carload traffic, subject to weight minima specified in the Classification or exceptions thereto.

"Rates for the various classes and weight brackets are graded according to mileage rate blocks. The number of miles within each block increases as the length of haul increases, as is shown in the following table:

Length of Haul Constructive Miles		
Over	But not over	Miles in each rate block
5	50	5
50	200	10
200	300	20
300	800	25
800	1200	50

"Minimum rates are also named for hauls from 0 to 3 miles and for hauls over 3 to 5 miles. No rates are prescribed for mileages beyond 1,200 miles, for the reason that no two points within California are separated by a greater constructive distance."

To illustrate the bracketing of rates according to weight of shipment, the first-class rate in cents per 100

lb. for a distance of 90 to 100 miles, by weight brackets, is as follows:

Any Quantity	103
Minimum 2,000 lb.	93
Minimum 4,000 lb.	66
Minimum 10,000 lb.	44
Minimum 20,000 lb.	35

Second, specific point-to-point class rates between San Francisco, Sacramento, and Los Angeles territories are set forth to reflect special conditions pertaining thereto. Third, minimum mileage commodity rates, which alternate with minimum class rates, are provided for the following commodities: canned goods, cement, cereals and cereal products, dried fruit, grain and grain products, hay and related articles, lumber and forest products, petroleum and petroleum products, rice and sugar. Finally, a limited number of point-to-point commodity rates are published in Highway Carriers' Tariff No. 2. For the most part they comprise rates that were prescribed prior to issuance of that tariff and which were designed to equalize marketing conditions.

Rates for the Future

The commission now has under consideration a proposed new minimum rate tariff for class rates. A rate structure, proposed by the commission's senior transportation rate expert, would, in general, continue the principles of the 1939 decision. The graduation of intermediate rates according to weight minima would continue, the same weight brackets being used, except that a 100- to 499-lb. category would be added. This creation of a new bracket was based on evidence that service for very small shipments has become relatively more expensive than for larger offerings.

During hearings on the original rate-setting proposal, the railroads protested against allowing truckers to use the carload ratings of their Western Classification for truckload quantities. At that time the railroads did not gain their point. But in the new proposed tariff it is recognized that motor carriers charging railroad carload rates for truckload shipments actually provide loading and unloading not provided by the railroads. The purpose of minimum rates, the commission's staff member insists, is "equivalence of competitive opportunity between various types of carriers." He goes on to say: "Where one class of carriers assesses the lower rates of its competitors for the performance of a materially greater service than included in the lower rate, it is clear that no such equality of competitive opportunity can exist." It is therefore recommended that the proposed tariff include a charge of three cents per 100 lb. for tail-gate loading at point of origin and two cents per 100 lb. for tail-gate unloading at point of destination when the alternating railroad rate applies. No similar charge would be assessed when the railroad rate is used in combination with minimum truck rates.

Further than this, the study indicates that trucks should continue to be allowed to alternate railroad carload classification ratings and rates with motor carrier rates. It finds that truckload ratings in the truckers' classification are about 2.3 percentage points higher than the corresponding ratings in the railroads' Western Classification, based on samplings of truck traffic. With regard to criticism that railroad ratings do not reflect the physical characteristics of trucks the commission's economic staff writes:

"The argument of limited truck capacities has less force when applied to highway transportation along the Pacific Coast and adjacent western states than elsewhere in the country. Heavily laden combination truck and trailer units are used more extensively in the western region. Such equipment reduces materially the differences between truck and railroad freight car capacities."[2]

An important change in the proposed tariff provides additional terminal charges for delays to equipment and use of carrier employees for loading and unloading, with charges based on actual time consumed. Higher minimum charges are also proposed.

Unwanted Traffic

The commission's study takes particular note of practices of motor carriers in discouraging unwanted classes of commodities. Certificated carriers often place a floor under a given segment of traffic, at a level higher than the minimum rates generally, by publishing only less-truckload rates. Of the 136 carriers of general commodities filing tariffs with the commission, 47 publish class rates in this manner. Also, "magnified weights are often applied to commodities of low-density in accordance with so-called cubic-foot rules." Permitted carriers frequently accomplish the same result by the application of per-shipment, per-trip, and per-load charges. The commission's study asserts that the problem of articles of low density is of more importance to the trucking industry than the railroads. It contains evidence that the equipment most frequently used in hauling operations on the highway has an average weight-carrying capacity of 41,250 lb. and a volumetric capacity of 2,000 cu. ft. In contrast, according to the Railway Equipment Register, automobile, box and furniture cars of the Southern Pacific have capacities ranging from 3,175 to 4,798 cu. ft. Because cubic foot rules cannot be uniformly applied, resulting in discrimination between shippers, the commission's staff believes that they are not an adequate solution to the problem. It is recommended instead that exception ratings on articles of low density be included in the proposed exception sheet to the tariff, and that carriers maintaining rules which require an artificial basis for determining freight charges be required to cancel them from their tariffs.

10-12% Motor-Carrier Return Rate

The motor carrier rates set forth in the proposed tariff are, according to the commission's study, designed to "reflect an operating ratio of 93 before taxes and 95.8 after taxes, and a rate of return upon investment ranging, before taxes, from 17.5 per cent to 21 per cent, and, after taxes, from 10.5 per cent to 12.6 per cent."

To what extent California's experience is of value to carriers in other parts of the country is controversial. In a sense, the state is an economic island, bounded by the ocean, Mexico, and sparsely populated Nevada. Only to the north and, to some degree, in Arizona do there exist competitive market areas which would tend to hamper the effect of experiments in intrastate rates by forcing parity with interstate levels. Also, California is large and growing more and more self-contained. In general, the trucks operating within its borders are larger than are permitted in many other states. Where truck capacities are large, motor carriers are less likely to fight and undercut quantity rates published by the railroads, because their rates are more competitive with railroad carload rate levels. The effect of such rate experiments on forwarder traffic is also an important consideration. But by any test, California rate relationships have great significance for other sections.

[2] It should be noted that, under their existing tariff, highway carriers may observe carload minima set forth in Western Classification only when they are not in excess of 36,000 lb. That weight is the highest minimum weight under Highway Carriers' Tariff No. 2.

Wright New President of A. R. C. I.; Felton Heads Shippers' Car Line

C. W. Wright

S. M. Felton

Charles W. Wright, whose election as president of the American Railway Car Institute to succeed Samuel M. Felton was reported in last week's *Railway Age*, was born in Pittsburgh, Pa. His entire business career of nearly 50 years has been spent in railroad car sales work. From 1901 to 1906 he was engaged in such employment with the Steel Car Forge Company, a subsidiary of the Standard Steel Car Company. In 1906 he was placed in charge of sales for Steel Car Forge, with headquarters in Pittsburgh, which position he held until 1923. For 10 years of this period he also was in charge of the company's plant operations at Ellwood City, Pa., although he retained his Pittsburgh headquarters.

Handled War Work

Mr. Wright was elected vice-president in charge of sales in 1923, and in 1931 he was made vice-president of the Standard Steel Car Corporation, which was purchased in 1930 by the Pullman Car & Manufacturing Co., a subsidiary of Pullman, Inc. Three years later he was elected a vice-president of the Pullman-Standard Car Manufacturing Company, likewise a Pullman, Inc., subsidiary.

He was elected to Pullman-Standard's board of directors, as well as to the board of the subsidiary Pullman-Standard Car Export Corporation, in 1940. In 1945 he was elected president of Pullman-Standard Car Export, holding that post until his recent election to head the A.R.C.I. Mr. Wright has served as a member of the executive committee of the Railway Supply Manufacturers Association and from 1940 to 1945 he was in Washington, D. C., as head of all war work for Pullman-Standard. He remained in Washington, conducting the firm's export business, until 1949, since when his headquarters have been in New York.

Varied Experience

The election of Mr. Felton as president and chief executive officer of the Shippers' Car Line Corporation, effective October 15, also was announced in last week's *Railway Age*. Mr. Felton was born in Cincinnati, Ohio, on February 9, 1893. In 1916, after graduation from Harvard University, he worked for one year as, successively, a construction engineer for the Poughkeepsie & Wappinger Falls, a valuation engineer for the East Pennsylvania, and as assistant to chief engineer of the J. G. White Management Corporation. In the period 1917-1919 he was a second lieutenant in the army, part of the time as executive officer to chief engineer, American Expeditionary Force.

From 1920 to 1926 Mr. Felton was assistant general manager, Western region, at Minneapolis, Minn., and general manager, Eastern region, at New York, for the Pure Oil Company. During the next 10 years he was district manager for the White Motor Truck Company at Philadelphia, Pa. From 1936 to 1945 he was, successively, assistant director of sales, eastern sales manager and general sales manager for the railway division of the Edward G. Budd Manufacturing Company, now the Budd Company. He has been president of the American Railway Car Institute for the past five years. In his new position he succeeds the late Robert Rogers. Mr. Felton is chairman of the Industrial Advisory Committee of the U. S. Commission in the Pan American Railway Congress which will meet in Mexico City this month.

The Shippers' Car Line Corporation, a wholly owned subsidiary of the American Car & Foundry Co., buys, sells and leases tank cars. "Shippers' fleet of more than 10,000 cars, a majority of them of modern construction," said A.C.F.'s annual report for the fiscal year ended last April 30, "have been steadily engaged at satisfactory rentals on long-term leases to a highly desirable list of oil, chemicals and other manufacturing concerns."

The American Railway Car Institute, which is the trade association of the railroad car building industry, includes the following firms among its members: A.C.F., the Budd Company, the General American Transportation Corporation, the Greenville Steel Car Company, the Magor Car Corporation, the Pressed Steel Car Company, Pullman-Standard, the Ralston Steel Car Company, the St. Louis Car Company, the Virginia Bridge Company and the Youngstown Steel Car Corporation.

"It is about time that all segments of our economy stop thinking about what they can *demand* and think about what they can *give* to save themselves and all of us from an unpleasant fate. Not only as groups, but as individuals, this theory must apply. It must apply in connection with prices, wages, and hoarding."—*Secretary of Commerce Charles Sawyer.*

B. & B. Men Get New Ideas About Practical Problems

Seven committee reports on timely subjects are considered at three-day annual meeting at Chicago simultaneously with the convention of the Roadmasters' Association

Railway bridge and building supervisory officers applied themselves closely to the consideration of a number of routine but important problems at a meeting held at Chicago, September 18-20. This fifty-fifth annual convention of the American Railway Bridge & Building Association was held at the Stevens hotel concurrently, but separately, with the sixty-second annual meeting of the Roadmasters' and Maintenance of Way Association.

An account of the Roadmasters' meeting was published in last week's *Railway Age*. That account reported various activities in which the two associations participated jointly. These included a combined opening session on Monday, September 18, and another joint session on the afternoon of the following day, at which three addresses on subjects of mutual interest were heard. Other features of the concurrent conventions as summarized last week, included a record display of manufacturers' products, which was staged jointly at the Coliseum by the Track Supply Association and the Bridge & Building Supply Men's Association. Another event shared by the two meetings was the annual banquet, held Tuesday night, which was tendered to the members of the two railway groups and their families by the supply associations.

The combined attendance at the two meetings was of record proportions. During the three-day period 897 railway men and 262 supply men registered at the meetings, the aggregate attendance being 1,159 members and guests. At the 1949 meetings the registration consisted of 808 members and guests, while in 1948, when the previous high was achieved, a total of 900 members and guests registered.

The President's Remarks

The separate sessions of the Bridge & Building Association were directed by W. F. Martens, general foreman bridges and buildings of the Atchison, Topeka & Santa Fe, San Bernardino, Cal., and president of the association. He was assisted by W. A. Huckstep, general building supervisor of the Missouri Pacific, St. Louis, Mo., and first vice-president of the association.

The opening feature of the first separate session of the Bridge & Building group was an address by President Martens in which, in addition to giving an account of his stewardship of the association's affairs, he urged the members to cooperate with the railroad industry in its program to win the good will of the public. The association, through its members, said Mr. Martens, "can exercise a considerable influence towards guiding our railroads along the road to popular acclaim." As a prerequisite to successful action on this score "it is imperative," said Mr. Martens, "that the members themselves become thoroughly familiar with the subject." Success in winning public sympathy also depends on salesmanship, and he urged the individual members to become salesmen for railroad service. Mr. Martens also said that we must "forget our own personal ambitions and desires and look only to the good of the organization and the enterprise that provides us with a livelihood."

Another event at the opening session of the Bridge & Building meeting was the election of two new honorary members, A. E. Bechtelheimer, engineer of bridges (retired), Chicago & North Western, and T. H. Strate, division engineer (retired), Chicago, Milwaukee, St. Paul & Pacific.

The principal business conducted at the meeting consisted of the presentation and consideration of seven committee reports on the following subjects: Types of Treated Lumber and Uses in Building Maintenance and Construction; Construction and Maintenance of Station Platforms; How to Sell Accident Prevention to the Man in the Gang; Installing and Maintaining Waterproofing on Ballast-Deck Bridges; Mechanization and Specialization of Forces; Concrete Piles in Bridge and Pier Construction; and External Protection from Corrosion for Pipe Lines.

After the close of the business session Wednesday noon, September 20, about 60 of those present participated in a bus trip to inspect the new laboratories of the Portland Cement Association at Skokie, Ill. At the laboratories the group, along with other guests, witnessed

President W. F. Martens of the Bridge & Building Association, presiding at one of the joint sessions with the Roadmasters' Association

the testing to failure of a full-size prestressed concrete railroad trestle slab.

In the election of officers at the final business session Mr. Huckstep was advanced to president; Guy E. Martin, superintendent of water service, Illinois Central, Chicago, was promoted from second vice-president to first vice-president; F. R. Spofford, assistant division engineer, Boston & Maine, Dover, N. H., was advanced from third vice-president to second vice-president; Lee Mayfield, resident engineer, Missouri Pacific, Houston, Tex., was promoted from fourth vice-president to third vice-president; and H. M. Harlow, assistant general supervisor bridges and buildings, Chesapeake & Ohio, Richmond, Va., was elected fourth vice-president. L. C. Winkelhaus, architectural engineer, Chicago & North Western, Chicago, was re-elected treasurer. Directors elected were: Merwin H. Dick, engineering editor, *Railway Age*, Chicago; R. R. Gunderson, assistant bridge engineer, Southern, Washington, D. C.; and J. F. Warrenfells, master carpenter, Seaboard Air Line, Savannah, Ga.

Eight subjects were chosen for investigation and study by committees during the ensuing year, as follows: Fire Protection of Structures and Materials; Accident Prevention in Maintenance and Use of Work Equipment; Developments in Use of Laminated Timbers; Protection of Steel Bridges Against Brine Drippings; Comparative Economies of Materials for Building Exteriors; Construction and Maintenance of Diesel Fueling Facilities; Effects of the 40-Hour Week on B. & B. Maintenance; and Economies in Maintenance and Operation of Heating Plants.

Committee Reports*

The seven reports presented at the convention by technical committees cover a wide range of subjects in the bridge, building, and water service fields, as well as safety. Abstracts of these reports follow.

PRECAST CONCRETE PILES

The use of concrete piles at any site warrants a thorough survey on and below the surface and borings should be made at frequent intervals to determine the lengths of the piles that are to be used, according to the committee report on Precast Concrete Piles in Bridge and Pier Construction. J. F. Warrenfells, Jr., master carpenter of the Seaboard Air Line, Savannah, Ga., was chairman of this committee. Large savings, it said, may be effected by determining the proper lengths of all piles before casting any of them.

The report then discussed extensively the manufacture, handling and use of precast concrete piles, including the proper location of the casting yard; the types, number and handling of the forms; concrete mixes; the reinforcing, pouring and curing of piles; the loading, transportation and distribution of the piles; the protection of piles while driving or jetting; the use of templates for proper spotting; and the cutting of piles for capping.

The rising cost of timber has placed the concrete pile in a more favorable position than ever before, the report pointed out, and the concrete-pile structure is just coming to the front in many parts of the country. Owing to the improvements in the equipment for handling the loads involved, and the economy effected by the proper use of the concrete pile, the objections to such piles in the past are fast being overcome.

*These reports will be published in full in the November issue of *Railway Engineering and Maintenance*.

PIPE LINE CORROSION

While not all losses of fluids through leaks caused by corrosion in pipe lines can be prevented, they can be reduced considerably by one or more of the main techniques used for controlling the rate of corrosion—protective coatings, alloying, cathodic protection or change in environment—according to the report of the committee on External Protection from Corrosion for Pipe Lines. H. E. Graham, assistant superintendent water service of the Illinois Central, Chicago, was chairman of this committee. Since the conditions which bring about the deterioration of iron and steel pipes are entirely different underground than when exposed to the atmosphere, the report was divided accordingly into two discussions.

In discussing atmospheric corrosion, the report stated that this was influenced by the length of time the pipes remain wet, by the extent and kind of atmospheric pollution, by the presence of condensed moisture in the rust film and by the composition of the metal. In this connection, a suitable priming coat, such as red lead, followed by a finishing coat of aluminum paint or black graphite, will be helpful. Where corrosive conditions are bad, a petroleum-base coating containing a chromate rust inhibitor has proved effective when protected with a spirally applied, reinforced fabric wrapper. Metallic protective coatings were also discussed, as well as the use of copper, chromium and chromium and nickel.

In underground corrosion, the corrosive character of the soil is an important factor, and depends mainly upon the soil water and its dissolved solids and gases; the dissolved solids being acids, bases, salts and organic compounds; and the dissolved gases being oxygen, carbon dioxide, hydrogen sulphide and sulphur dioxide in varying amounts.

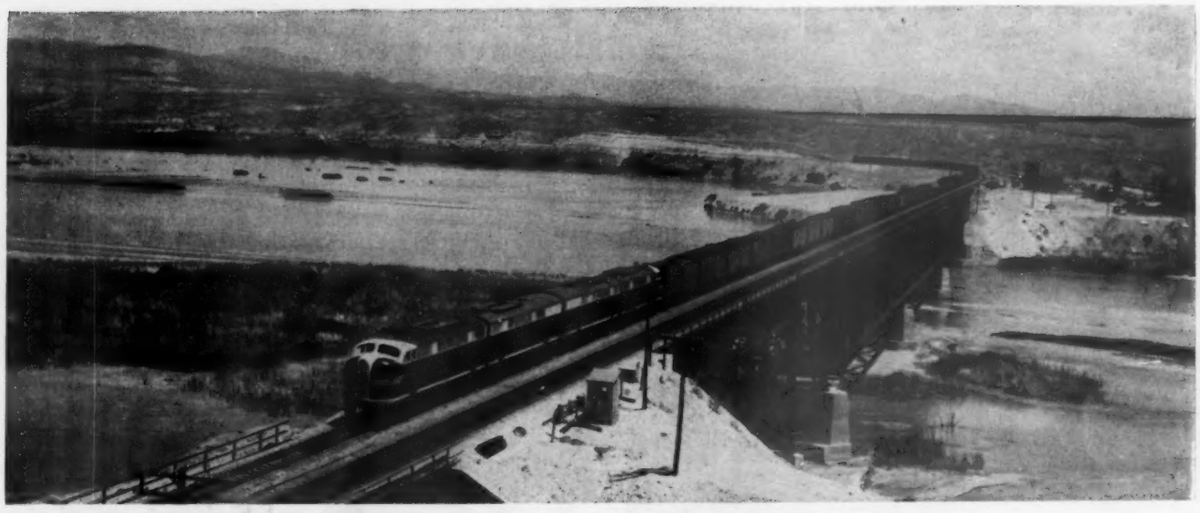
For combatting such corrosion, metallic coatings, asphalt or bituminous coatings applied with spirally wrapped fabric, petroleum-base rust-inhibitive coatings, and Portland cement concrete were recommended, along with cathodic protection where necessary to offset the effect of electrolysis.

SELLING ACCIDENT PREVENTION

The keeping of records showing causes of accidents in all departments should be very thorough, according to the committee reporting on How to Sell Accident Prevention to the Man in the Gang. E. H. Blewer, assistant superintendent of safety of the New York Central system, New York, was chairman of this committee.

Six means were presented by the committee for teaching the concept of safety: (1) safety meetings with the supervisors, and meetings by them with their men; (2) personal contact by safety agents with the men; (3) films—motion and sound-slide training films showing the correct procedures of work; (4) actual demonstrations in work methods; (5) safety literature, graphs, posters, and home-made demonstrations; and (6) home safety meetings and family-night safety rallies working toward establishing the basic principle of safety in each home.

The report also pointed out the fallacy in the belief that a new man is more likely to have an accident than the "old-timer." The only difference between these men, from a safety standpoint, is that the new man with the right kind of supervision can be developed into a safe workman, whereas many an "old-timer" is handicapped by being steeped in bad work habits acquired over a



As pointed out in one of the committee reports, the service life of steel bridges with ballast-deck floors can be prolonged by the proper installation of membrane waterproofing

Where permanence is desired, as well as appearance, it is the present-day practice to construct concrete platforms on a well-prepared base

period of years. Both must learn and practice safe work habits.

Basic steps in training a man in safety are telling him how to do a job, showing him how to do a job, and watching him doing the job and correcting where necessary.

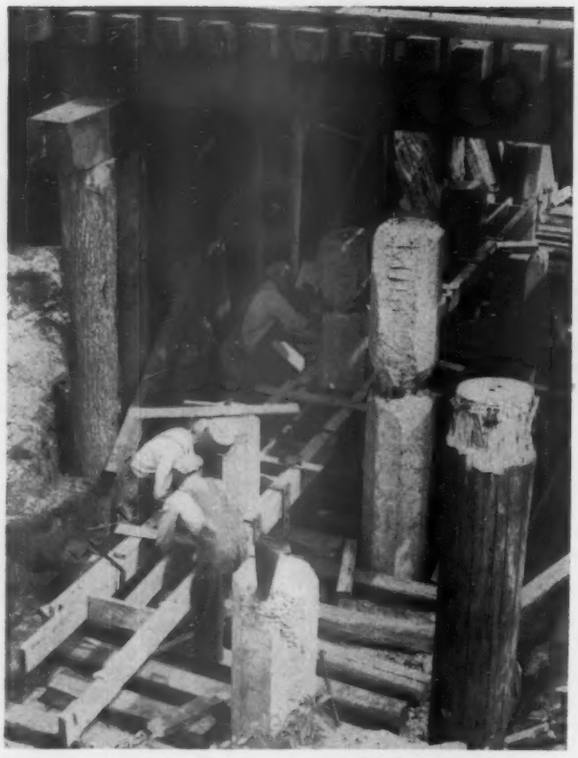
STATION PLATFORMS

The Committee on Construction and Maintenance of Low-Level Passenger Platforms, of which L. C. Winkelhaus, architectural engineer of the Chicago & North Western, was chairman, declared that there is no portion of a railway property that is more in the public eye nor more subject to close scrutiny than the passenger platform. For these reasons, it stated, a clean and well-maintained platform cannot fail to make a lasting impression upon the traveling public, and a well-constructed platform is an asset to any railroad.

The report dealt with various kinds of wearing surfaces, including wood, screenings, brick, concrete and asphaltic compounds, as well as the general construction of the common types of low-level platforms. In discussing the filled types of platform, emphasis was placed in the report on the necessity of using curbs of adequate thickness and depth, proper anchorage of the curbs, and the importance of thoroughly tamped filling materials. A considerable portion of the report dealt with the construction, maintenance and advantages of the permanent types, such as concrete, concrete-brick, and the bituminous-concrete platforms.

TREATED LUMBER

Although the cost of various types of treated lumber will generally run from 30 to 50 per cent higher than the cost of the untreated product, this additional cost has proved to be a good investment in the reduction of



Where precast concrete piles cannot be driven to full depth without excessive cost, and the penetration is satisfactory, the piles can be cut by using air tools and burning the reinforcing bars

labor and material in maintenance, according to the committee report on Types of Treated Lumber and Uses in Building Maintenance and Construction. R. W. Cassidy, supervisor of bridges and buildings of the Chesapeake & Ohio, Peru, Ind., was chairman of this committee.

In general, the committee found, the usual preference of lumber treatments in roadway building construction is creosote and creosote solutions for posts, sills and floor joists; water-borne salts or other toxic chemicals which can be painted, for framing, sheathing, siding, trim, and millwork; and salt treatment of lumber in the structural portions of buildings for shops, enginehouses for coal-burning locomotives, and buildings where a fire would result in a heavy loss of equipment or freight.

The report stated that, while treated lumber may eventually decay, it can be left in service longer as the sound portion will retain sufficient strength for a much longer period after decay sets in than untreated lumber. Furthermore, it said, treated lumber has a high salvage value and, when railway buildings become obsolete from the standpoint of occupancy and are retired and razed, the salvage value is much greater where treated lumber was used in the structure.

BRIDGE WATERPROOFING

The committee on Installing and Maintaining Waterproofing on Ballast-Deck Bridges, after pointing out the need for waterproofing, stressed in its report the importance of proper drainage of ballast-deck structures as well as the care that should be exercised in the design to place the drainage outlets in such locations, and extended sufficiently beyond the underside of a slab or structure, that the discharged waters will not come in contact with any part of the structure. This committee was headed as chairman by F. J. A. Leinweber, bridge and building master of the Canadian National, St. Thomas, Ont.

The report stated that the membrane method of waterproofing is mostly used for ballast-deck bridges and is a treatment designed to render concrete or other types of construction impervious to water. This membrane is usually composed of impregnated felts and a fabric bonded together with hot mopped bitumen to form a protective envelope. The method of forming this waterproof envelope was then described in the report, after which a coating was recommended to protect the membrane from the sun and other elements and the action of the ballast.

Four such protective coating methods were then described: (a) a layer of poured-in-place asphalt mastic not less than 1½ in. thick; (b) a layer of asphalt blocks or plank not less than 1 in. thick; (c) a layer of reinforced cement mortar or concrete not less than 2 in. thick; and (d) a course of hard burned brick not less than 2¼ in. thick. This was followed in the report by an example of a thorough and effective waterproofing repair job on a railroad bridge spanning the Niagara River gorge.

In conclusion, the report emphasized the importance of quickly disposing of drainage and suggested that, in view of the fact that more disintegrated concrete is found at construction joints than at cracks occurring in concrete after the structure has been in service, and because construction joints are difficult to waterproof effectively, consideration should be given to the use of open joints.

MECHANIZATION AND SPECIALIZATION

A comprehensive report was submitted by the committee on the Mechanization and Specialization of Forces, of which R. R. Gunderson, assistant bridge engineer of the Southern, was chairman, and was based on replies to a questionnaire received from 25 Class I railroads. These replies showed almost unanimous agreement that increased use of power tools and equipment would (1) increase man-hour output, (2) decrease man-hour costs, (3) improve quality of work, and (4) result in overall economy of the work—all of which would effect an average saving of 31 per cent from these items.

In dealing with the first phase of its subject—mechanization of forces—the report pointed out the many items of routine maintenance that can profitably be accomplished with the use of mechanized equipment and tools. On the other hand, it cautioned, power-equipment is not in itself the final answer to maximum economy because, if good judgment is not exercised in its use, loss of time, expense, and delay to gangs may result.

In sampling opinions on specialization, the committee reported that as many opinions were found that general work crews were more efficient and economical as were obtained favoring specialized crews. The principal reason expressed for favoring general crews was that specialization would increase jurisdictional disputes among the crafts. Another reason was the opinion that general crews are more versatile and flexible and that transportation of men causes less loss of time. The report concluded that, in view of the wide difference of opinion regarding the merits of specialization, each case should be weighed carefully before taking steps that may complicate future cases.

Beamed Radio to Beat Storms On the Rock Island

Microwaves for transmission of communications between Norton, Kan., and Goodland to replace pole-line wires along 106-mile right-of-way subject to severe wind, sleet and snow storms

To eliminate serious interruptions of telephone and telegraph communications, caused by extremely bad sleet storms breaking line wires, the Chicago, Rock Island & Pacific has installed and is now completing the final testing of beamed radio, otherwise known as microwaves, to replace conventional pole-line wires between Norton, Kan., and Goodland, 106 miles, on its main line from Chicago to Denver and Colorado Springs. This microwave system connects at Norton with the pole line extending east along the railroad, and at Goodland with the pole line extending west. In addition to the terminal stations at Norton and Goodland, repeater or relay stations are in service at Clayton, Dresden, Rexford, and Levant to provide communication for intermediate points.

The Norton-Goodland section, which is traveled by the "Rocky Mountain Rockets," was chosen for the road's first microwave installation because of its severe storm and consequent pole-line damage record. Temperatures in the territory, which traverses rolling prairie country gradually ascending westward towards Denver, vary from —27 deg. F. during the winter months up to 110 deg. F. in the summer.

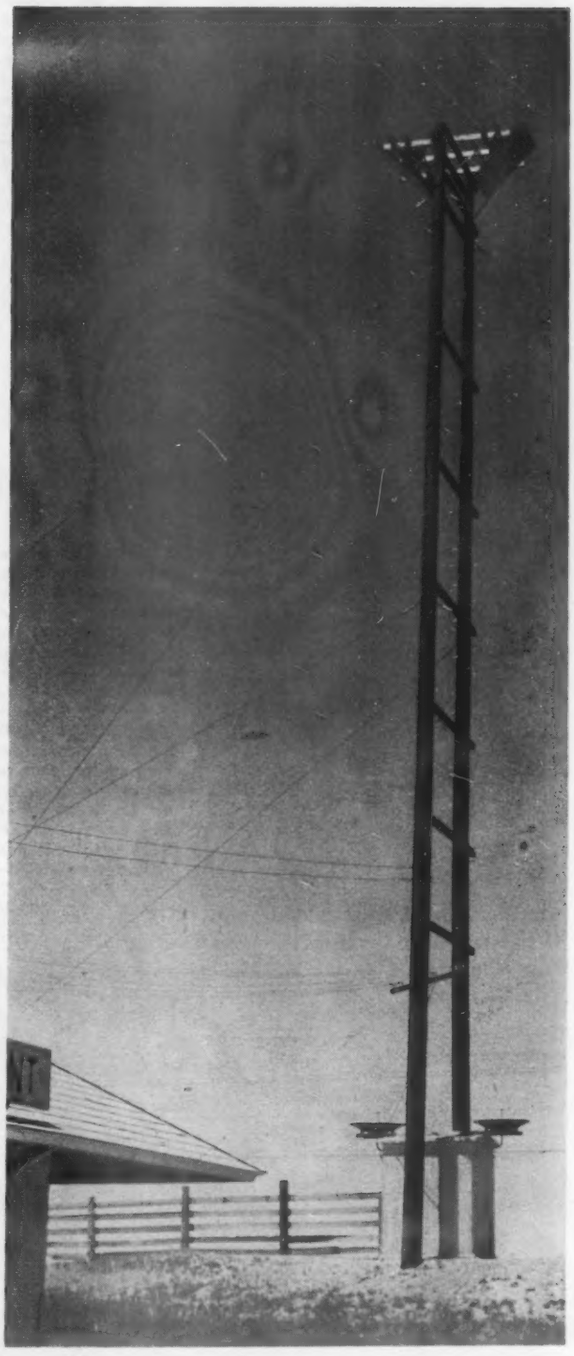
Considerable experimentation and development has taken place on the installation, and if it proves to be a successful addition to the Rock Island's communications network, further extensions are to be considered by the railroad.

The cost of the installation is in the neighborhood of $600 per mile, including development, experimentation and changes, compared to approximately $1,600 per mile for the equivalent transmission facilities on a new conventional pole line—a saving of $1,000 per mile.

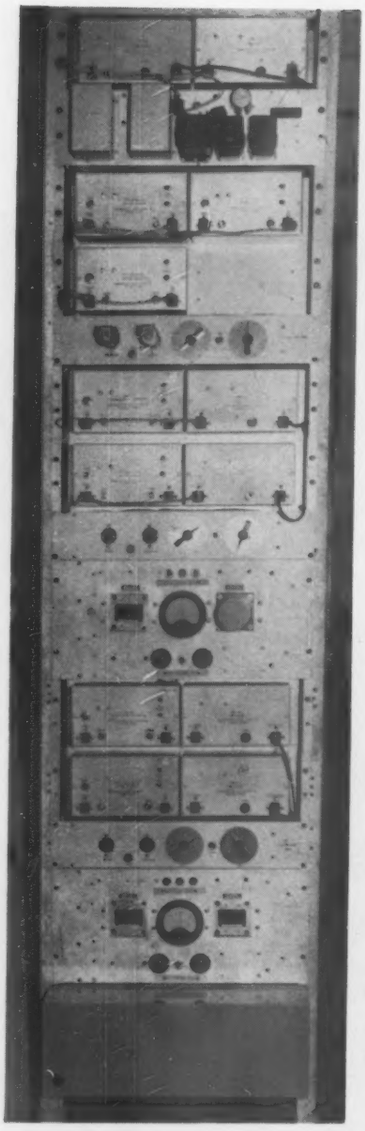
These figures, of course, would not necessarily apply elsewhere—they might be higher or lower, depending on any number of factors, such as number of circuits involved in the microwave system, wires on the pole line, carrier equipment in use, terrain conditions, number of relay points, and intermediate stations where communication might be required. Where dual equipment would be required, additional costs would amount to approximately 60 per cent.

Microwaves Similar to Radar

Employing many principles of radar, the beamed-radio system provides one local and four through tele-



In the Rock Island's microwave system between Norton, Kan., and Goodland, 106 miles, there are four repeater or relay points similar to this one at Levant. Telephone and telegraph communications are beamed vertically by super-high-frequency radio waves from the "saucers" atop the equipment house, at the base of the tower, to the reflectors at the top of the tower, and thence horizontally in a straight line of sight to the adjacent repeater stations



Typical rack of multiplexing equipment for converting pole-line voice and telegraph circuits into microwave carrier at the Norton and Goodland terminals of the beamed radio system. Equipment in top third of the rack is also typical of that at the four intermediate repeater stations

Close-up of microwave equipment housing at the base of the 100-ft. tower supporting reflectors at a repeater station, showing one of the two "saucers," or parabolic antennas, for radio beaming communications to the reflectors at the top of the tower which, in turn, direct beams to adjacent repeater points

graph channels, two voice channels for telephone, and can be expanded to handle up to 32 voice channels, plus a number of other circuits, thus enabling the railroad to take care of additional communications or possibly signal control circuits in the future, if desired. Operating at frequencies in the neighborhood of 7,000 megacycles, the system uses parabolic antennas and reflectors supported on 100-ft. H-structure telephone-pole towers at three repeater points, and on 160-ft. grain elevators along the right of way at one repeater and one terminal station, hops between the repeater stations varying from 16 to 28 miles.

The heart of the system is the dual-functioning klystron tube, which generates electrical power alternating at a rate of several billion cycles per second. It was developed during and following World War II.

At Norton, the pole line telephone and telegraph circuits enter terminating equipment. They are then fed into multiplexing equipment for changing them into microwave carrier, thence radio beamed by the microwave equipment in a straight line of sight, similar to a beam of light, from repeater station to repeater station, and finally to the terminal at Goodland, where there is a similar arrangement of pole-line circuit terminating, multiplexing and microwave equipment. The distance between the repeater stations varies, since they must be so located with respect to the elevation and terrain that there will be no land or other obstructions to the radio beam—microwaves travel in a straight line, similar to radar, but unlike conventional radio broadcasting waves.

Telephones Between Relay Points

Telephone facilities between the repeater stations at Clayton, Dresden, Rexford and Levant are operated by conventional line-wire circuits, which are connected into the repeaters of the microwave system through multiplexing equipment. Any disturbance from storms on these wire lines, however, will not affect through traffic on the microwave system. Furthermore, chances of such trouble are decreased by the fact that the pole-line loading is reduced with the elimination of wires required for through circuits. This, in turn, is expected to simplify and reduce overall pole-line maintenance and replacement costs over a period of years.

Replace Wire-Line Facilities

As an example of replacement of wire-line facilities by microwave systems, not necessarily with reference to the Rock Island's installation, a major communications company was able to abandon pole lines in favor of microwaves after a two-year period of operation. This was, however, a concentrated program, and it is conceivable that a railroad might accomplish such an abandonment in two to four years. This new art is progressing tremendously, and the change-over time element can be expected to become appreciably less.

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GENERAL NEWS

Net Income for 1950 Reaches $366 Million

Net railway operating income is $556.8 million

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Estimated results for August showed a net income of $96,000,000, compared with $39,000,000 for August, 1949. Net railway operating income for the 1950 month was $122,064,180, while in August, 1949, it was $65,403,262. In the 12 months ended with August, the rate of return averaged 3.39 per cent, compared with 3.4 per cent for the 12 months ended with August, 1949.

Revenues Up, Expenses Down

Gross in the eight months of 1950 amounted to $5,885,664,117, compared with $5,812,809,024 in the same period of 1949, an increase of 1.3 per cent. Operating expenses amounted to $4,559,522,971, compared with $4,712,808,262, a decrease of 3.3 per cent.

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Gross in the Eastern district in the eight months totaled $2,634,271,606, an increase of 0.2 per cent compared with the same period of 1949. Operating expenses totaled $2,087,929,346, a decrease of 3.1 per cent.

All Districts Share in Gain

Class I roads in the Southern region in August had an estimated net income of $10,000,000 compared with $4,000,000 in August, 1949. In the eight months, their estimated net income was $62,000,000 compared with $38,000,000 in the same period of 1949.

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Gross in the Southern region in the eight months totaled $828,395,869, an increase of 4.2 per cent compared with the same period of 1949, while operating expenses totaled $631,268,842, a decrease of 1.7 per cent.

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CLASS I RAILROADS—UNITED STATES

	1950	1949
MONTH OF AUGUST		
Total operating revenues	$ 889,796,085	$ 742,772,250
Total operating expenses	626,264,865	587,640,579
Operating ratio —per cent	70.38	79.11
Taxes	126,476,664	75,320,380
Net railway operating income (Earnings before charges)	122,064,180	65,403,262
Net income, after charges (est.)	96,000,000	39,000,000
EIGHT MONTHS ENDED AUGUST 31, 1950		
Total operating revenues	5,885,664,117	5,812,809,024
Total operating expenses	4,559,522,971	4,712,808,262
Operating ratio —per cent	77.47	81.08
Taxes	650,876,004	559,192,362
Net railway operating income (Earnings before charges)	556,842,130	431,937,727
Net income, after charges (est.)	366,000,000	242,000,000

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In his role of commissioner to whom the commission's Bureau of Service reports, Mr. Knudson is administrator of those provisions of the act which authorize establishment of priorities and allocations with respect to domestic rail, highway and water transportation, and he is "claimant" for those agencies before N.P.A. He attended the regular monthly meeting of the A.A.R. directors which was held in Washington, D.C., on September 29. His discussion of the presentation which he had submitted a few days earlier to N.P.A. was part of what was described as an informal talk that he made to the railroad executives.

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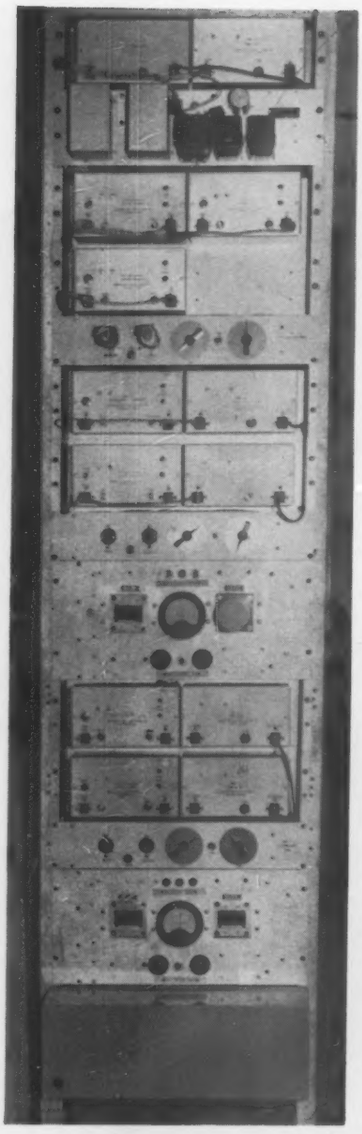

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Knudson made these three recommendations: (1) That pending completion of plans for the overall allocation of steel, an informal emergency program be instituted for voluntary allocation of steel for freight car construction and repairs; (2) that this temporary voluntary program be established at the level of 10,000 new cars monthly, plus the steel necessary for repairs, "without in any way prejudicing that National Production Authority's right to increase the car production goal to some larger figure—say 12,000 or 15,000 cars per month—when the freight car program ultimately can be consolidated with general steel allocations"; and (3) that N.P.A. promptly call into joint session task forces from steel companies, the railroads, and the car-building industry and its suppliers, "to effectuate such a program under proper governmental supervision."

As Mr. Knudson put it, these proposals comprised an undertaking to "reinstitute the voluntary program that operated so successfully" during the 1947-1949 period under the guidance of the former Office of Defense Transportation and the Department of Commerce. The commissioner also urged N.P.A. to act favorably on his proposals "at the earliest possible moment." The need for new freight cars, he said, "is here today, production machinery is ready to meet it, and what is required is emergency action that will allow an immediate start to be made."

As to the backlog of freight-car orders, he said that the railroads "have ordered and are still ordering enough cars to justify a building schedule of well over 10,000 per month." He added that the car builders and railroad shops "have the capacity and know-how to use such quantities of steel"; and he expressed his conviction that the steel companies "will cooperate in producing the steel if the N.P.A. will simply establish the fact that such steel requirements are essential." Moreover, he asserted that he was proposing a "ready-made program," which is "the only vital aspect of the defense program that is fully ready to go—today."

Operating at One-Third Capacity

As to the current situation in the car-building industry, Mr. Knudson said that operations are at "approximately one-third of its capacity because of limited steel supplies." He has been told that "there are a substantial number of freight car plants which will have to close down entirely, at least temporarily, during October."

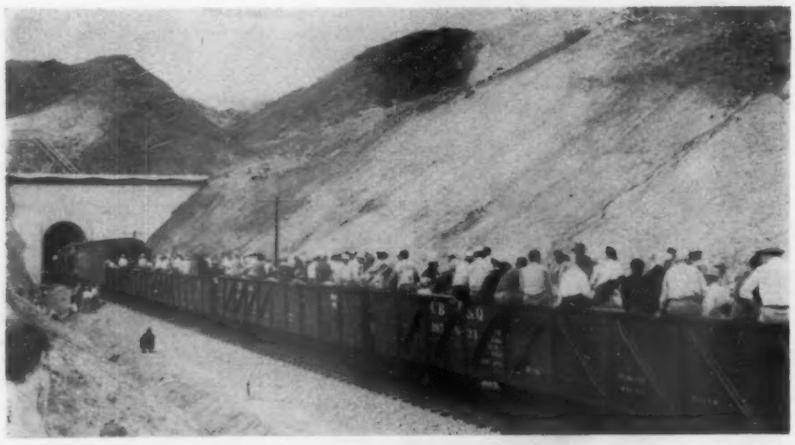
"Immediate action," he continued, "is required to obtain steel for the car builders now, before we face peak needs for actual military orders, rather than let the car building plants idle along at low capacity and then try to step up their production at the very time that all the other defense demands are reaching a crescendo."

Meanwhile, Mr. Knudson had called attention to freight-car shortages which are here when "we have not yet faced the problem of absorbing the full traffic burdens that will come as we expand our defense production program." He added that "any program to provide more freight cars becomes an integral part of our military effort," because "full-scale defense planning is meaningless unless we have the ability to transport the raw materials and the finished munitions and supplies including food that are needed."

The commissioner referred next to the necessity for scrapping from 6,000 to 7,000 cars a month, noting that "this is more than is being currently produced." This, he warned, "means that shortages are going to grow" until they constitute "not only one of the first, but one of the most difficult, bottlenecks in our whole defense program."

"There is," he continued, "only one answer to all this: A major step-up in new car building, accompanied by intensive efforts to repair as many of the 108,000 bad order cars as are worth repairing . . . The railroads are doing all they can to meet the situation. They are pushing their repair programs and have ordered more than 75,000 new cars in the last 90 days alone, with additional new orders being placed almost daily. The car building industry . . . have a backlog of orders that . . . totals 100,000. To work off this backlog will require more than eight months continuous output at the peak production level of the last quarter-century, and at least a year to complete under present conditions, even with adequate material supplies.

"I emphasize the existence of these orders places the freight car problem in a different perspective than exists on many of our defense items. In the case of even the most important military items, the need is to make sure that steel will be available three to six to nine months hence, when it is needed. The steel for freight cars was needed yesterday."



SOME 500 TICKETS were sold for the special excursion operated by the Chicago, Burlington & Quincy on August 5 from Thermopolis, Wyo., over the relocated 12-mi. portion of its Denver-Billings main line around the reservoir to be created by Boysen dam on the Big Horn river. The excursion train is shown here as it stopped for dedication ceremonies at the 7,130-ft. tunnel which is the major engineering feature of the new line (See *Railway Age* of August 5, page 68, and also of September 2, page 90)

Shows How '48 Traffic Paid Overhead Costs

Manufactures group made the largest contribution

Traffic of the Manufactures and Miscellaneous group accounted for only 35.7 per cent of the 1948 revenue ton-miles of all carload freight, but contributed 63 per cent of the amount which the railroads had available for payment of that year's overhead expenses. This is shown in a study made by the Bureau of Accounts and Cost Finding of the Interstate Commerce Commission.

The M. and M. group led all others as a contributor to the 1948 overhead fund. As to the other commodity groups, the proportions of overhead which they contributed, and the percentages of 1948 ton-miles which they accounted for, were shown in the study, respectively, as follows: Products of Mines, 18.6 per cent and 38.6 per cent; Products of Agriculture, 11.2 per cent and 14.9 per cent; Products of Forests, 4.9 per cent and 8.3 per cent; Animals and Products, 2.3 per cent and 2.5 per cent.

The study, entitled Distribution of the Rail Revenue Contribution by Commodity Groups—1948, is Statement No. 4-50. It carries the usual disclaimer to the effect that it was issued "as information," and "has not been considered or adopted" by the commission. A similar study covering the year 1947 was issued by the bureau in April, 1949 (see *Railway Age* of April 23, 1949, page 48). That was based on freight

commodity statistics, whereas the present study is based on "an application of costs for the year 1948 to a waybill sample of carload traffic for the same year."

Its purpose, as stated in the introduction, "is to provide a comparison of carload revenues and costs by commodity classes and groups, and indicate, generally, the contribution made by each to the carriers' revenue needs over and above the revenues required to cover the out-of-pocket costs of handling the traffic." The term "revenue contribution" is used to designate the amount which each commodity group (after paying its own out-of-pocket costs) contributed to the fund available to pay overhead expenses, i.e., the amount by which revenues exceeded or failed to meet out-of-pocket costs.

Ratios to Out-of-Pocket Costs

The study's table of ratios of revenues to out-of-pocket costs showed that each of the five commodity groups had 1948 revenues exceeding its out-of-pocket costs. The highest ratio was that for the Manufactures and Miscellaneous group — 189. The others were: Products of Agriculture, 139; Animals and Products, 127; Products of Mines, 136; Products of Forests, 138.

The study also compared the revenue contribution of each group with its "apportioned overhead burden." The latter was determined by apportioning overhead costs on a ton and ton-miles basis—"without regard to the ability to pay of the various commodity classes."

The ratios of revenue contributions to apportioned overhead burdens ranged from 207 for the M. and M. group to 48 for the Products of Mines group. The others were: Products of Agriculture, 87; Animals and Products, 118; Products of Forests, 68.

There are also comparisons on various other bases in this "general" part of the study which deals with the 1948 traffic on a countrywide basis. There are two other parts which discuss, in turn, "the territorial traffic movements of the commodity groups," and "the results with respect to the commodity classes and their territorial movements."

"Aluminum pigs—shall I order a single or double deck stock car?"

—From "Railroad Humor" compiled by the St. Louis Southwestern

Yardmasters Settle On Steelman Basis

Enter wage-case agreement like that with Switchmen

Settlement of the 40-hour-week case involving yardmasters represented by the Railroad Yardmasters of America was announced at the White House on September 30 by Dr. John R. Steelman, assistant to President Truman. The settlement was on the basis of the Steelman formula which had previously settled the like case involving yardmen represented by the Switchmen's Union of North America, but which has been rejected by the Brotherhood of Railroad Trainmen and Order of Railway Conductors.

Representatives of R.Y. of A. and the carriers met in Washington this week to sign contracts embodying terms of the agreement. Those terms provide for a wage increase of 23 cents per hour for the yardmasters, effective October 1. That is 5 cents more than the increase recommended by the emergency board which heard their case.

The agreement also provides for a three-year moratorium on changes in wages and rules, but there are arrangements for quarterly cost-of-living adjustments on the basis of the consumer's price index computed by the Bureau of Labor Statistics of the Department of Labor. As to the 5-day, 40-hr. week, Dr. Steelman's announcement said it had been "set aside for a period of at least one year and thereafter subject to the desires of the employees and the manpower situation." The announcement also said that the agreement would mean a total monthly wage increase for yardmasters of "approximately $54."

Dr. Steelman added that "President Truman approved the settlement and congratulated both parties on their spirit of cooperation and their willingness to compromise their differences in the conferences with Dr. Steelman and Leverett Edwards, member of the National Mediation Board."

Meanwhile, the impasse continues in the B.R.T.-O.R.C. case. Those two unions rejected the Steelman proposal shortly before they posed their August 28 strike threat which caused President Truman to seize the railroads for operation by the secretary of the army.

As to the other pending cases involving demands of the Brotherhood of Locomotive Firemen & Enginemen and Brotherhood of Locomotive Engineers, the carrier representatives were scheduled to hold meetings with representatives of those two unions in Washington on October 5. The B. of L.F.&E.'s demands are for a 40-hr. week with no loss in take-home pay, while the B. of L.E. is seeking a 20 per cent increase in basic wage rates.

Also, there were reports in Washington this week that D. B. Robertson, president of the B. of L.F.&E. was planning to add a request for a basic-wage increase to his 40-hour-week demands. Other reports indicated that the non-operating unions would soon make demands for wage increases and changes in working rules. President G. E. Leighty of the Order of Railroad Telegraphers, who is chairman of the "non-ops" joint negotiating committee, said this week that those matters would be considered at a meeting in Washington on October 11.

Knudson Sets Up Controls Agency

It's called the Defense Transport Administration

Creation of a Defense Transport Administration, under the jurisdiction of Interstate Commerce Commissioner James K. Knudson, was announced October 4, when the order establishing the new agency was issued by Commissioner Knudson. The order was made effective the day it was issued, and it named Mr. Knudson as ex-officio the administrator of the agency.

As outlined in Commissioner Knudson's order, the transport administration "shall administer and perform the functions and exercise the powers" delegated in President Truman's executive order of September 9. That executive order provides that the commissioner of the I.C.C. responsible for the supervision of the Bureau of Service shall administer those provisions of the Defense Production Act having to do with priorities and allocations in domestic rail, highway, and inland-waterway transportation. (See *Railway Age* of September 16, pages 67-68).

The internal organization of the new agency will consist of ten sections: Office of the Administrator; Office of the Deputy Administrator; Office of the Executive Assistant; Office of the General Counsel; Equipment and Materials Division; Manpower Division; Domestic Transport, Storage, and Port Specialist; Industry Consultants; Information Officer; and Administrative Officer. At the time the order was issued by Commissioner Knudson no appointments of personnel for the new agency had been made. It was stated at the I.C.C. that the first appointments would "likely" be made within the next ten days.

An announcement issued by Mr. Knudson simultaneously with the organization order said the new agency in its initial stages "will be small in number of personnel." The commis-

sioner said he will use "the powers, facilities, and services of the . . . Bureau of Service" as well as other commission agencies as may be available, and that the work of the D.T.A. will be "complementary to that of the commission and will eliminate the necessity for duplication of effort."

Commissioner Knudson said that aside from "certain problems that now exist, particularly in the freight car supply and manpower fields," primary efforts in the immediate future will be toward "devising measures and programs" to meet the impact of defense transportation upon domestic facilities. With the cooperation of all concerned, and by careful planning and programming, "we can assure a supply of these facilities adequate to meet the needs of defense production and the maintenance of essential civilian economy," Commissioner Knudson said.

C. of C. Transport Group Advises Emergency Action

The board of directors of the Chamber of Commerce of the United States will be advised by the chamber's Transportation-Communication Committee to "take emergency action on recommendations for transportation conservation, allocations of essential materials, and distribution of manpower to assure the industry's continued efficient operation." This was announced following a meeting which the committee held in Washington, D. C., last week.

Committee Chairman Evans A. Nash said that, since the transport industry is now confronted with increasing government controls, "shippers and carriers should take voluntary action toward maximum use of all transport facilities." Noting the "particularly serious" freight car shortage, Mr. Nash said that "every effort should be made by users to load and unload cars promptly in clean condition." Interstate Commerce Commissioner James K. Knudson addressed the committee at the luncheon session of the meeting.

Car Surpluses and Shortages

Average daily freight car surpluses and shortages for the week ending September 30 were announced by the Association of American Railroads on October 5 as follows:

	Surplus	Shortage
Plain Box	0	18,366
Auto Box	14	301
Total Box	14	18,667
Gondola	19	6,050
Hopper	62	7,916
Covered Hopper	0	149
Stock	113	194
Flat	35	906
Refrigerator	2,170	53
Other	361	137
	2,774	34,072

Other proceedings of the meeting included the committee's consideration of its future policy on the matter of a single federal regulatory agency, and the appointment of three subcommittees—on civil aviation policies, urban transportation policies, and gypsy trucks. It was stated that other discussions of the meeting pointed up agreement among committee members on the proposition that "states should work toward reasonable uniformity of standards for truck sizes and weights, the regulation remaining state and not federal responsibility."

The committee referred to the chamber's Labor Relations Committee the subject of "possible amendments to the Railway Labor Act." And it referred to the Finance Committee the subjects of deferred maintenance and excess profits tax.

C.A.B. Extends Air Coach Service; Fares To Go Up

The Civil Aeronautics Board has granted a six-months extension to the nine major air lines offering air coach service under schedules which had been due to expire September 30. In permitting the carriers to continue coach service until March 31, 1951, the board ordered that fares be increased from 4 cents to 4½ cents a passenger-mile by November 15.

The air lines affected are Capital, Chicago & Southern, Delta, Eastern, National, Northwest, T.W.A., United, and Western. Transcontinental coach service on T.W.A. and American, and San-Francisco-Los Angeles service of United and Western, is not affected by the present extension since the authority under which the latter service is operated will not expire until December 31.

Under the present extension, the board said, coach service should continue to be restricted to operations at off-peak hours between large cities, with limited services to passengers. As to the decision to increase minimum fares for air-coach travel, the board said this decision was reached after thorough study of the results of coach operations to date and their impact on the financial results of the air lines.

Seitz, Coughlin Address Northwest Shippers Board

The only lasting solution to the car-shortage problem is for railroads to obtain more equipment, and carriers already have begun such a program, Ambrose J. Seitz, executive vice-president of the Union Pacific, told the recent 78th regular meeting of the Pacific Northwest Advisory Board in Spokane, Wash. Continued cooperation by shippers and receivers in the matter of cleaning cars, prompt loading and unloading, and heavier loading, will materially help the situation, Mr. Seitz added.

E. W. Coughlin, manager, railroad relations, Car Service Division, Association of American Railroads, pointed out to the board that in 1946-1949 annual net operating income of railroads averaged $771,000,000, while purchases of equipment and material averaged $1,861,000,000, or $241 of purchases for every $100 of net operating income. The magnitude of the expenditures, Mr. Coughlin said, made when railroads had the least net operating income in their history, in proportion to the traffic handled by them, demonstrates the daring and heroic efforts railroads have been, and are, making to provide freight service that shippers want and need.

AT THE SEPTEMBER 28 LUNCHEON of the Transportation and Communication Committee of the United States Chamber of Commerce—left to right: Homer C. King, director, Bureau of Service, Interstate Commerce Commission; Evans A. Nash, president, Yellow Transit Company, Oklahoma City, Okla., and committee chairman; James K. Knudson, member, I.C.C.; and C. McD. Davis, president, Atlantic Coast Line and committee member

"Which Way Transport?" Subject of Boston Meeting

"This is no time for self-interest manipulation of any group, whether of labor, of industry or agriculture, nor is it the time for new experiments of a welfare state," Donald D. Conn, executive vice-president of the Transportation Association of America, told the New England Institute of Transporta-

tion at Boston, Mass., on September 28.

Mr. Conn's talk, in which he urged elimination of federal expenditures "which have no place in times of emergency" and reduction of "less essential" federal bureaus and payrolls, was made as a closing summary of proceedings at the institute—an all-day discussion of transportation problems sponsored by the New England Regional Forum of the T.A.A. Speakers representing all forms of transportation, users and investors, described the "two wars" in which transportation is now engaged—"the first, to carry out its duties in connection with the nation's military and defense activities, and the second, to resist trends toward socialization of any part of the transportation industry."

Frank C. Rathje, president of the T.A.A. and of the Chicago City Bank & Trust Co., sounded the keynote of the meeting, when he said, at the luncheon session:

"While we must have regulation in transportation, we have piled on such laws, rules, and regulations, and such a maze of controls, that no management of any transportation agency can do a fraction of the things it would like to do for service, efficiency, and economy.

"We have poured so many billions of government funds into various phases of transportation that we have an unworkable mixture of private and government participation, with neither policy nor plan for the intricate relationships between its various forms.

"As a result of a complex and endless variety of facilities and rules, which have just grown like mushrooms over the last 30 years, we have a national policy which is not an intelligent policy; a federal system of regulation which prevents efficiency and service rather than encourages it; we have favors and privileges between competitors with no pattern of understanding or principle; and over it all we have a tremendous assortment of unregulated transportation service with a free hand to hit and run as it chooses."

Similiar views were expressed at the institute's morning meeting by Richard L. Bowditch, of Boston, president of C. H. Sprague & Son Co., who, speaking for users of transportation, said in part:

"If we are to have free competitive enterprises in this country . . . then we must protect our industries from outright control and limit the government to *reasonable* regulation. Foreign concepts and centralization trends have crept into our American way of life, and will, if not checked and materially modified, injure our competitive free enterprise, and put more and more industry into the straitjacket of the federal government."

Speaking as a railroad representative, Robert E. Woodruff, of Cleveland, Ohio, chairman of the Erie, told his audience that "It is to your interest that our railroads be maintained under private ownership and control. . . . It is time we joined forces to insure an intelligent and basically American solution to our transportation problem."

Other speakers were: For transportation investors—Samuel S. Hall, Jr., of Boston, vice-president of the New England Mutual Life Insurance Company; for air transport—Robert Ramspeck, Washington, D. C., executive vice-president of the Air Transport Association; for pipe lines—J. L. Burke, Tulsa, Okla., president of the Service Pipe Line Company; for highway transportation—Chester G. Moore, Chicago, chairman of the Central Motor Freight Association; and for water transportation—George W. Morgan, New York, president of the Association of American Ship Owners. Presiding at the various sessions were: Morning—George Baker, professor of transportation at the Harvard University Graduate School of Business Administration; luncheon—James C. Richdale, president of the New England Council; afternoon—Harry J. Blake, president of the Boston Chamber of Commerce; and, at the closing question period, William H. Day, manager of the transportation department of the Boston C. of C.

Railway Unit in Training

The 724th Railway Operating Battalion, an army organized reserve unit sponsored by the Pennsylvania, has arrived at Fort Eustis, Va., for training. The unit is commanded by Major Albert M. Schofield, formerly a track supervisor for the P.R.R.; the executive officer is Captain Harold L. Wood, also from the Pennsylvania. Both officers saw service in Europe during World War II.

Pan American Rail Group To Meet at Mexico City

The Seventh Pan American Railway Congress, which will study common problems of railroad development and progress in the Western Hemisphere, will convene in Mexico City on October 10 for a 10-day meeting. Representatives from both North and South American countries will attend the session.

President William T. Faricy of the Association of American Railroads, who is chairman of the United States National Commission in the Pan American Railway Congress Association, will head the U.S. delegation at Mexico City. Other members of the U.S. commission who will also be delegates to the Congress are George P. Baker, professor of transportation in the Graduate School of Business Administration of Harvard University and U.S. representative in the Transport and Communications Commission of the United Nations; James G. Lyne, president of Simmons-Boardman Publishing Corporation and editor of *Railway Age*; Arlon E. Lyon, executive secretary of the Railway Labor Executives Association; and James M. Hood, president of the American Short Line Railroad Association.

Advisers to the delegation will be Walter S. Abernathy, executive secretary of the United States National Commission in the Pan American Railway Congress Association and transportation specialist in the Office of Industry and Commerce, Department of Commerce; Albert R. Beatty, assistant vice-president, A.A.R.; Kenneth N. Hynes, U.S. resident member of the Permanent Commission of the Pan American Railway Congress Association and attache of the U.S. Embassy at Buenos Aires, Argentina; Henry H. Kelly, chief of the Inland Transport Policy Staff, Department of State; and Gerald M. Magee, research engineer of the A.A.R.

The United States became a member of the Pan American group in 1948, and the U.S. National Commission to the association was appointed by President Truman in June, 1949. Meetings such as the one in Mexico City are held approximately every three years.

Trucks Permitted to Use New Parts of Pa. Turnpike

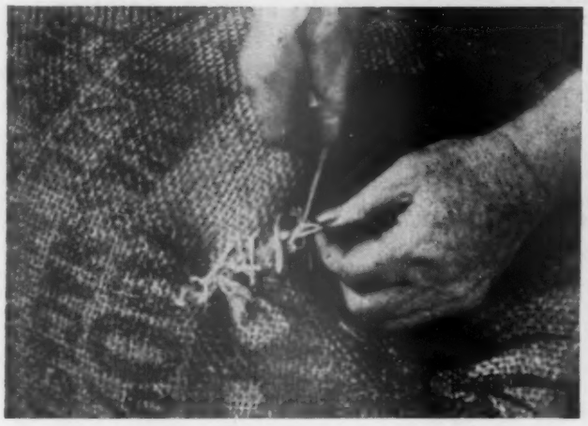
Authority to use newly extended portions of the Pennsylvania Turnpike as an alternate truck route has been granted to motor carriers operating over certain highways parallel to the turnpike. In a recent notice, the Interstate Commerce Commission's Division 5 said carriers authorized to operate over U.S. highways 30, 230, 322 and 422, and Pennsylvania state highway 23, may use that portion of the turnpike east of the Susquehanna river as an alternate route. West of the river, the turnpike may be used by truckers who hold operating authority over U.S. highways 40, 30, 422 and 22.

The commission imposed three conditions on motor common and contract carriers planning to use new sections of the turnpike. They must advise the I.C.C. by letter of their intention to use the turnpike, stating both present and proposed routes and specifying the highways to be used traveling to and from the turnpike; the letter must also state that intermediate points on the old route will continue to be served, with no new points being added; and the commission said that the right to use the turnpike as an alternate route will continue in each case only so long as a carrier has authority to operate over the parallel highways.

The notice by Division 5 said the turnpike has been extended westward from Irwin, Pa., to Pittsburgh, and eastward from Middlesex to King of Prussia, near Philadelphia. It also said motor carriers authorized to operate over irregular routes in Pennsylvania do not need specific authority from the I.C.C. to use the turnpike.

Seeks Trucker Bids on Mail Handled by Electric Lines

Motor carriers operating along routes served by electric railways will be asked by the Post Office Department to submit bids for handling the mail now carried by the electric lines. This was announced on September 29 by Postmaster General Donaldson, who



SHIPPERS AND CARRIERS ALIKE will be interested in the New York Central's new film on proper handling of l.c.l., called "It's A Deal." The film was made by the N.Y.C.'s motion picture bureau under the supervision of F. G. Beach. Technical direction was supplied by the loss and damage prevention bureau of the property protection and freight claims departments. Stowing, blocking, bracing and checking come in for the lion's share of attention in this movie. The scenes above are "stills" from this picture: (top, left) "Hey, that's fragile—it goes on top, not on the floor"; (top, right) Bulkheads help eliminate damage to freight; (bottom, left) This bag was ripped on arrival. The cooper shop is repairing it; and (bottom, right) "No bulkhead? The load must be leveled down"

noted that the I.C.C. had recently granted increases of 50 to 100 per cent in mail-pay rates of the electric lines.

"The department must use the most economical and practical forms of service for carrying the mails," Mr. Donaldson said. His statement also noted that the department has been making "more use of highway post offices, star route trucking of mail, and a much wider use of motor vehicle operation generally." The I.C.C. decision in the electric railway mail-pay case was noted in the *Railway Age* of September 23, page 50.

Kiley Elected to A.A.R. Board of Directors

John P. Kiley, president of the Chicago, Milwaukee, St. Paul & Pacific, was elected to membership on the board of directors of the Association of American Railroads at the board's September 29 meeting in Washington, D. C. He succeeds Charles H. Buford, whom he also succeeded as president of the Milwaukee when Mr. Buford retired recently.

President R. L. Williams of the Chicago & North Western, who was already an A.A.R. director, was elected to succeed Mr. Buford as a member of the board's executive committee.

Justice Dept. Intervenes In R.E.A. Case Before I.C.C.

The Department of Justice has been authorized to intervene in connection with the Railway Express Agency petition to the Interstate Commerce Commission, wherein R.E.A. is asking the I.C.C. to rule on the so-called "exclusive provisions" of R.E.A.'s operating agreement with the railroads. These provisions make the R.E.A. the exclusive agency for each contracting railroad in the conduct of express business, and are the subject of a Department of Justice antitrust complaint now pending in the United States District Court for Delaware.

The commission, which reopened the proceeding last May 18, has set January 8, 1951, as the date for hearing.

This hearing will be held in Washington, D. C., before Examiner Hosmer. The case retains its old docket number, Finance Docket No. 7316, which dates from 1929. In its original findings, the I.C.C. authorized the railroads to acquire R.E.A. and approved pooling arrangements for handling of express traffic.

The express agency's petition, on which the commission will hold hearings, takes the position that approval of the express-traffic pooling arrangements also constitutes approval of the exclusive provisions. The Department of Justice complaint in the District Court is aimed only at the latter, and a finding by the I.C.C. in favor of the R.E.A. would refute the Department's antitrust charge against the agency. Meanwhile, the court has ordered a stay in the case there, pending I.C.C. action. In asking authority to intervene in the case before the I.C.C., the

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Justice Department said it was interested "only insofar as the commission proceedings have relevancy to the proceeding before the court." The Department went on to say that its particular purpose in intervening would be to assist the commission "in finding and determining that the exclusive agency provisions of the uniform operating agreements presently in force between the R.E.A. and the railroads signatory thereto, do not constitute a necessary or essential ingredient of or adjunct to the pooling arrangement and division of earnings agreement."

Shock and Vibration Symposium at Chicago

About 400 representatives of the armed forces, universities, industrial laboratories and common carrier organizations will meet at the Armour Research Foundation in Chicago on October 18 and 19 for a Shock and Vibration Symposium, at which discussions will center around ways and means of protecting military shipments against the effects of impact, shock and vibration. The meeting is the 16th of a series, and the second to deal especially with shock and vibration damage to military shipments.

The program for the morning of October 18 includes guided tours to study instruments and techniques for measuring shock and vibration in common carriers; several fully equipped railroad research cars used in road testing will be displayed. O. C. Maier, of the Pullman-Standard Car Manufacturing Company, Chicago, will serve as chairman at the afternoon session on that day; while K. A. Browne, of Cleveland, Ohio, research consultant of the Chesapeake & Ohio, will be chairman and moderator for an October 18 evening panel discussion on "What can we do now to protect military shipments from shock and vibration damage?"

At the meetings, papers will be delivered by, among others, J. J. McDonald and G. B. Sundby of Pullman-Standard, and J. A. Kell and S. G. Guins of the C. & O.

Underslung Heater Use Not Limited

In an open letter to the National League of Fresh Fruit & Vegetable Distributors and the United Fresh Fruit & Vegetable Association, W. E. Balfrey, eastern representative of Luminator, Inc., points out that operation of underslung-type heaters for refrigerator cars is in no way affected by whether the cars are of the overhead ice-tank type or of the standard end-bunker type.

The term "overhead ice tank, underslung heater type," Mr. Balfrey said, has erroneously been used in referring to the underslung heater because this type of heater has found its widest use in Canada up to the present time, and because Canadian refrigerator cars are predominantly of the overhead ice-tank type. The underslung heater simply provides a means of introducing heat into the refrigerator car from under the load so that it can rise by natural convection through the load.

Freight Car Loadings

Loadings of revenue freight in the week ended September 30 totaled 879,985 cars, the Association of American Railroads announced on October 5. This was an increase of 9,789 cars, or 1.1 per cent, compared with the previous week; an increase of 221,857 cars, or 33.7 per cent, compared with the corresponding week last year; and a decrease of 28,881 cars, or 3.2 per cent, compared with the equivalent 1948 week.

Loadings of revenue freight for the week ended September 23 totaled 870,196 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, September 23

District	1950	1949	1948
Eastern	149,089	121,082	159,991
Allegheny	174,525	122,319	184,809
Pocahontas	65,650	20,426	70,273
Southern	135,979	103,309	135,053
Northwestern	145,899	129,669	147,058
Central Western	134,729	118,743	139,833
Southwestern	64,325	45,920	71,575
Total Western Districts	344,953	294,332	358,466
Total All Roads	870,196	661,468	908,592
Commodities:			
Grain and grain products	49,985	50 614	49,695
Livestock	14,542	15,529	17,838
Coal	164,283	36,075	177,142
Coke	15,231	10,487	14,884
Forest products	50,047	40,652	51,229
Ore	83 013	59,298	73,774
Merchandise l.c.l.	90,039	86,692	109,742
Miscellaneous	403,056	362,121	414,288
September 23	870,196	661,468	908 592
September 16	866,207	743,022	909,989
September 9	751,276	623,962	789,011
September 2	852 321	703,934	895,131
August 26	838,429	747,211	891,666
Cumulative total 38 weeks	27,619,277	27,154,850	31,316,169

In Canada.—Carloadings for the week ended September 23 totaled 90,307 cars, compared with 88,090 cars for the previous week, and 85,993 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
September 23, 1950	90,307	35,419
September 24, 1949	85,993	31,591
Cumulative totals for Canada:		
September 23, 1950	2,746,033	1,165,382
September 24, 1949	2,809,116	1,169,981

Reports on Test Shipments Of Cantaloupes, Cauliflower

Results of test-shipment studies to determine how damage and spoilage of cantaloupes and cauliflower might be reduced have been summarized in recent statements issued by the Department of Agriculture. The general findings of the studies are that jumbo crates of California cantaloupes loaded on-end, rather than in the conventional lengthwise fashion, reduce bruising of the fruit by about 50 per cent and crate breakage by about two-thirds; and that more ice and lighter loads "will do much to cut down spoilage of cauliflower in long distance shipments."

The findings as to the cantaloupes were based on test shipments of 16 carloads. The cauliflower tests, based on shipments from Long Island to southern and western points, showed that cauliflower should be cooled to degrees in the mid-30's immediately after harvesting and kept there until it reaches the consumer. The temperature of freshly harvested cauliflower was found to range from 45 deg. to 67 deg. As to loading of cauliflower, the tests indicated ("although the evidence is incomplete") that "there appears to be a definite advantage in favor of a modified 381-crate load over the tightly packed 400-crate load now customarily shipped."

Waybill Study

Another waybill study has been issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. It is Statement No. 5034, Distribution of Freight Traffic and Revenue Averages by Commodity Classes and Rate Territories—Terminations in 1949.

Truck Leasing Case Reopened by I.C.C.

The Interstate Commerce Commission has reopened for oral argument the Ex Parte MC-43 proceeding which involves rules to govern the lease and interchange of motor vehicles. The argument before the entire commission will be held at Washington, D.C., on October 30.

Last June, the commission issued a report and order in the case, prescribing leasing rules (see *Railway Age* of July 15, page 54). Subsequently, it postponed indefinitely the effective date of the order. The present reopening came after the commission's consideration of numerous petitions, including those of the railroads and the National Industrial Traffic League.

History of G.M.&O. Planned By Indiana University

A history of one of the few railroad systems to be formed in the last 50 years — the Gulf, Mobile & Ohio — will be prepared by the School of Business of Indiana University beginning this fall. The project has been made possible by a grant from the railroad to the Business Research Fund of the I.U. Foundation, according to a joint statement from G.M.&O. President I. B. Tigrett, and A. M. Weimer, business dean of the university. The development of the present north-south trunk line from six amalgamations of bankrupt properties will be carefully traced by L. L. Waters, pro-

NOW... FOR YOUR FREIGHT CARS

a PNEUMATIC

AUTOMATIC SLACK ADJUSTER!

1 NO FALSE "TAKE UP" FROM TRAIN SHOCK

2 NO LOSS OF CYLINDER FORCE FROM OVERCOMING SPRING ACTION

3 NO MANUAL ADJUSTMENT NEEDED FOR LIFE OF BRAKE SHOE

4 COMPLETELY AUTOMATIC—PROVED IN PASSENGER SERVICE

For Details—ask for Descriptive Leaflet 2468

Westinghouse Air Brake Co.

WILMERDING, PA.

No Comment

On January 31, the towboat "Franklin D. Roosevelt" struck a bridge belonging to the Chicago & North Western over the Illinois river near Pekin, Ill. One of the piers of the bridge was badly damaged. Early last week another towboat struck the same pier, flattening it completely. The name of the second boat?—"Harry S. Truman."

fessor of transportation at I.U., and James H. Lemly, who is currently on leave from the faculty of the University of Mississippi.

The history of the G.M.&O. will be the second railroad study to be undertaken by the university's business school staff. A history of the Chicago, Indianapolis & Louisville is nearing completion and will be released this fall.

Rentzel Leaves C.A.A. For C.A.B. Chairmanship

Delos W. Rentzel, former administrator of the Civil Aeronautics Administration, has been appointed chairman of the Civil Aeronautics Board to fill the vacancy created by the recent resignation of Joseph J. O'Connell, Jr. President Truman named Mr. Rentzel chairman about a week after the Senate had confirmed his appointment to C.A.B. The term of office to which Mr. Rentzel succeeds will expire December 31, 1953.

In moving Mr. Rentzel to the new post, the President nominated Donald W. Nyrop, deputy administrator of C.A.A., to become head of that agency. The Senate also confirmed Mr. Nyrop's appointment.

Emergency Board In R.E.A. Dispute

President Truman this week appointed an emergency board to investigate the dispute involving truck drivers of the Railway Express Agency, who went on strike in the New York metropolitan area on September 23. Members of the board are William J. Kelly, Joseph L. Miller, and Grady Lewis. (See *Railway Age* of September 30, page 48.)

CAR SERVICE

I.C.C. Service Order No. 868, which was designed to suspend so-called follow-lot and two-for-one rules insofar as they permit cars to be used without payment of the carload minimum weight for the car or cars actually used, has now been suspended indefinitely by the commission's Division 3. The order never became effective. It was originally issued with a September 20 effective date, but suspended before that date arrived, that suspension fixing a new effective date of October 4. The present suspension (embodied in Service Order No. 868-B) is "until further order of this commission."

ORGANIZATIONS

Two Supply Associations Elect New Officers

During the record-breaking joint exhibit of the Track Supply Association and the Bridge & Building Supply Men's Association, held at the Coliseum in Chicago, September 18-20, each of these organizations held its annual meeting.

In the election of officers at the meeting of the Track Supply Association, R. W. Torbert, Oxweld Railroad Service Company, Chicago, and first vice-president of the association, was advanced to president, and W. A. Peck, Rails Company, Chicago, was advanced from second vice-president to first vice-president. W. A. Maxwell, American Brake Shoe Company, Ramapo Ajax division, Chicago, was elected second vice-president; and Lewis Thomas, Q & C Co., Chicago, was reelected secretary-treasurer. New directors elected for a term of two years were: N. A. Howell,

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R. R. Clegg
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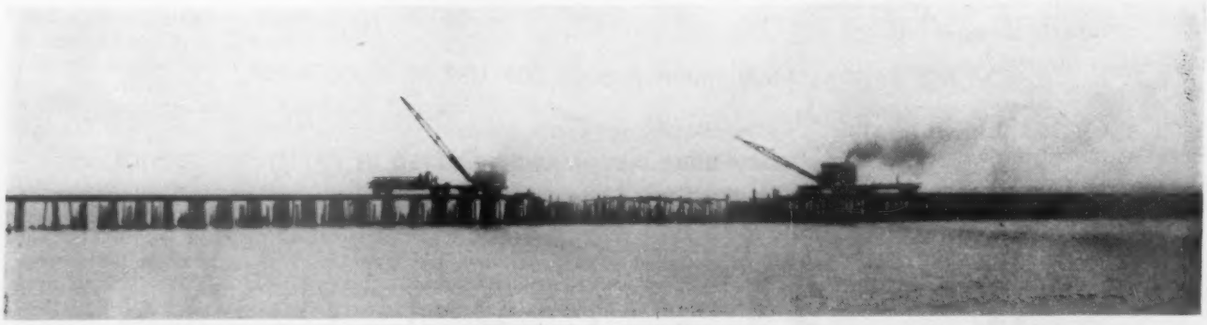
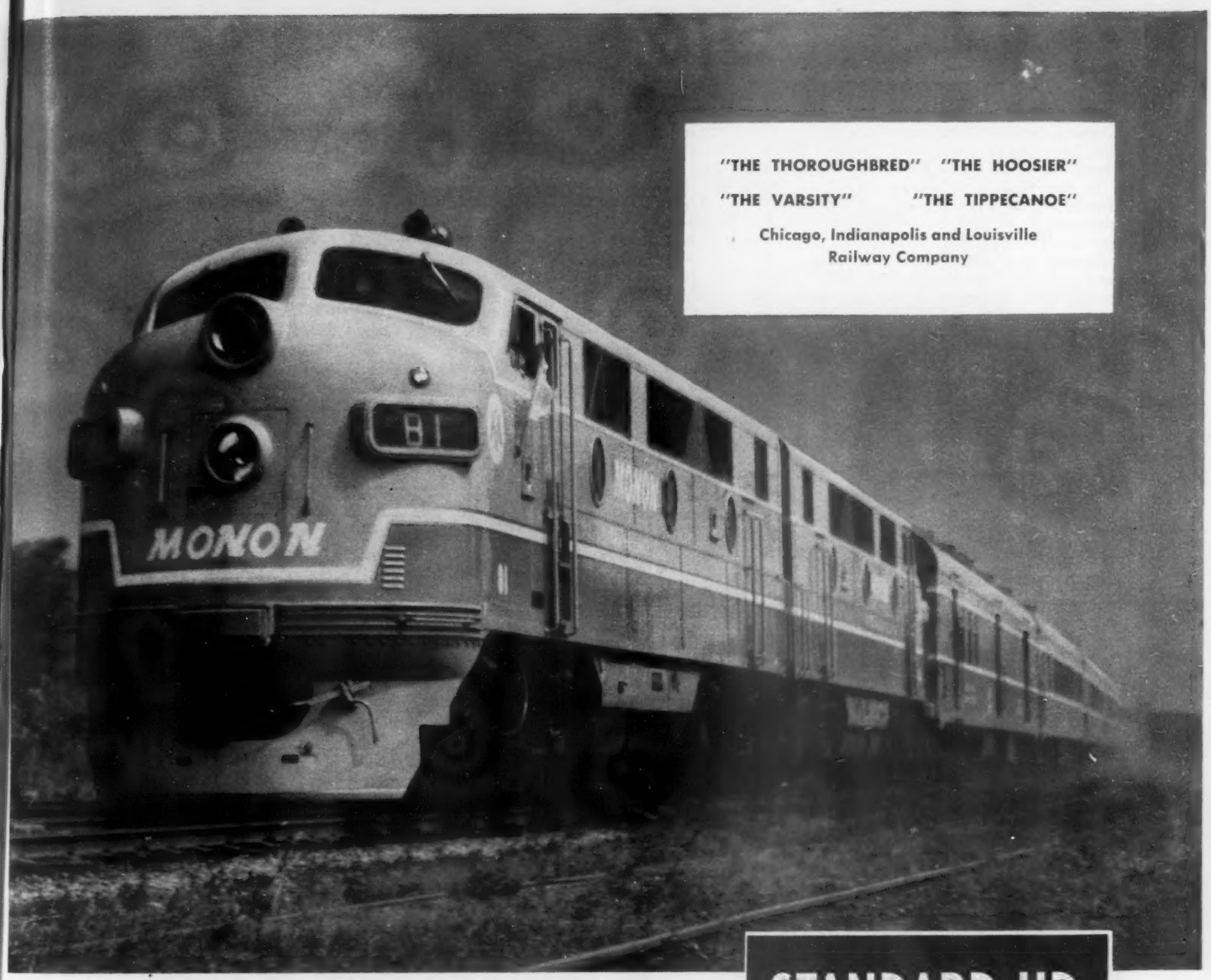


EIGHT FIRE-DESTROYED BENTS of the Central Vermont trestle across Missisquoi bay in Lake Champlain still separated C. V. and Grand Trunk cranes (left and right, above) when this picture was taken on August 17. About 1,650 ft. (135 bents) of the Lakewood, Vt.-East Alburgh trestle were burned to the water line on July 16; reconstruction was completed in 36 days, with C. V. and G. T. crews working from both ends in 14-hr. shifts



Four great "name" trains on the *MONON* use . . .

STANDARD HD
TRADE MARK
Diesel Oil

ONE of the first completely Dieselized railroads in America, The MONON, has continuously forged ahead in its efforts to give Indiana fast, modern service. Typical of its progress are these four great "name" trains: "The Hoosier," "The Varsity," "The Thoroughbred," and "The Tippecanoe." In the locomotives assigned to these trains, STANDARD HD Diesel Oil is contributing to the efficient operation of The Hoosier Line.

The Chicago, Indianapolis and Louisville Railway Company is one of the more than 60 railroads that now use STANDARD HD on their heaviest passenger and freight runs. This acceptance indicates the ability of STANDARD HD to provide efficient and economical lubrication for all types of Diesel locomotives. Make this wide-spread success your basis for investigating STANDARD HD Diesel Oil. A Standard Oil Railway Department representative can help you.

Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.

STANDARD OIL COMPANY (INDIANA) STANDARD

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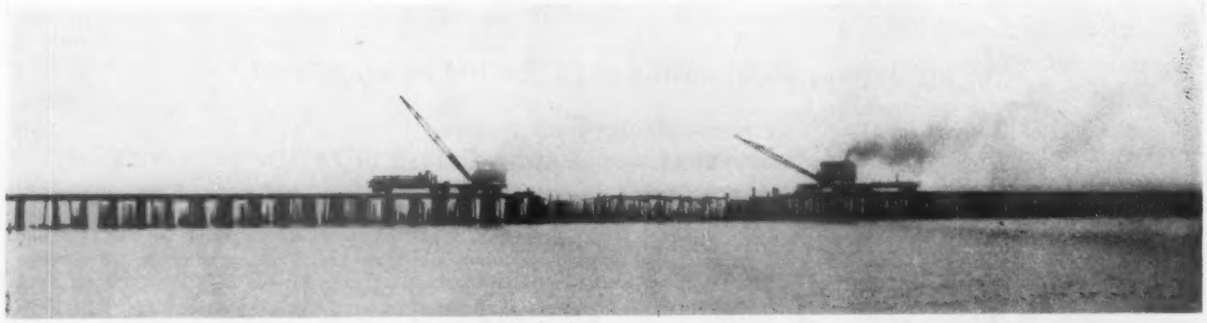

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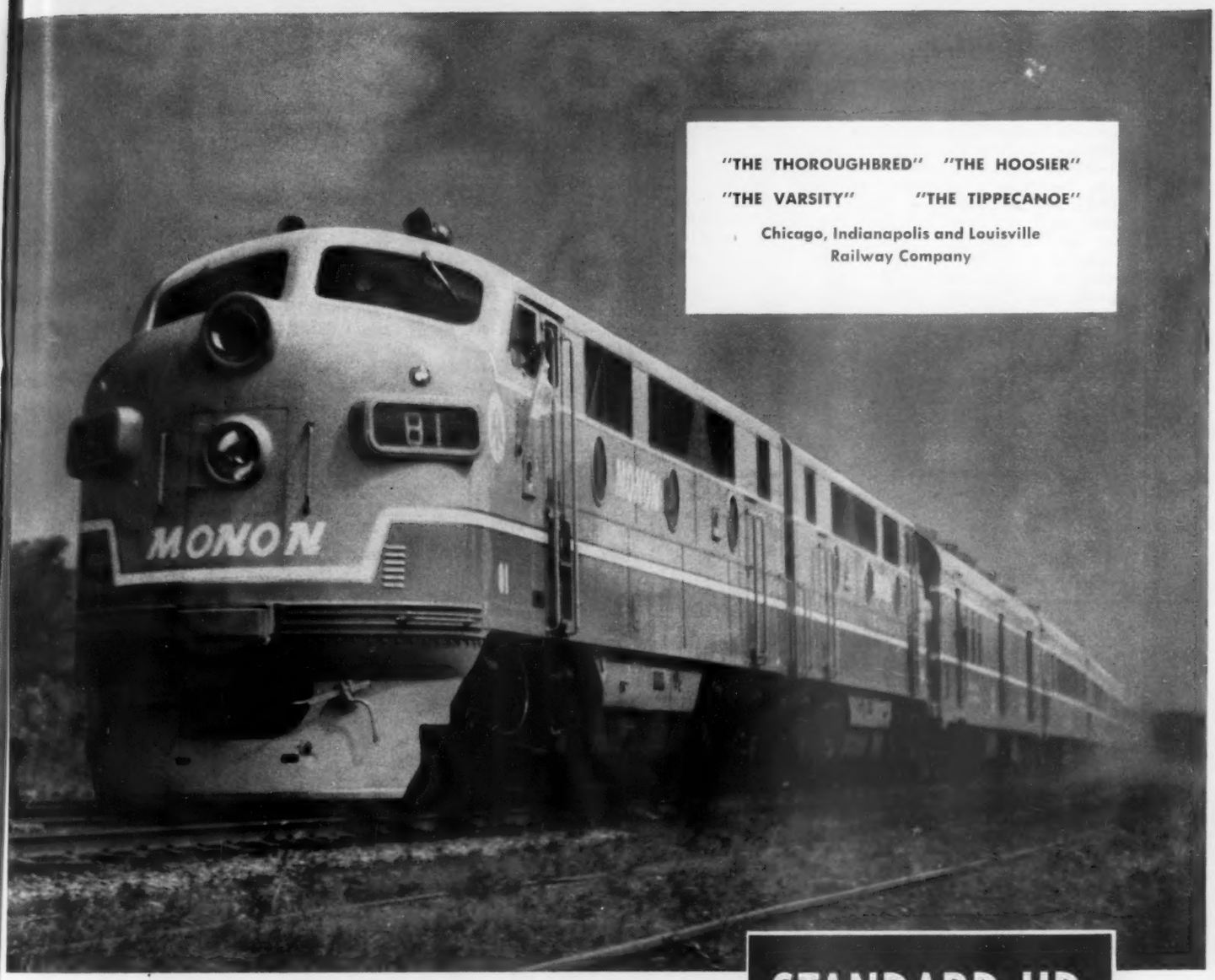

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Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.

STANDARD OIL COMPANY (INDIANA) STANDARD

Hubbard & Co., Chicago, and David R. Watson, Modern Railroads, Chicago. Kenneth Cavins, Fairmont Railway Motors, Inc., Chicago, who retired as president, was made a director ex-officio.

In the election of officers in the Bridge and Building Supply Men's Association, R. R. Clegg, American Lumber & Treating Co., Chicago, was advanced from vice-president to president; H. R. Deubel, Chicago Pneumatic Tool Company, Chicago, was made vice-president; A. E. Bardwell, Fabreeka Products Company, Chicago, became treasurer; and L. R. Gurley, Modern Railroads, Chicago, was elected secretary. G. R. Betts, Armco Drainage & Metal Products, Inc., Chicago, retiring president, became an honorary director. New directors elected were: E. C. Gunther, Duff-Norton Manufacturing Company, Chicago; Harry Fowler, American Structural Products Company, Toledo, Ohio; and Harry Wolfe, Lehon Company, Milwaukee, Wis.

Communications Convention

Among those reading papers at the 27th annual session of the Communications Section of the Association of American Railroads, to be held at French Lick Springs Hotel, French Lick, Ind., on October 17, 18 and 19 (see *Railway Age* of September 9, page 80), are: H. T. Sagert, radio communications engineer, Chicago, Rock Island & Pacific; L. R. Thomas, electronics engineer, Atchison, Topeka & Santa Fe; George M. Brown, electronics engineer, New York Central System; W. W. Pulham, superintendent of communications, Denver & Rio Grande Western; J. H. Wallis, communications engineer, Baltimore & Ohio; C. O. Jett, communications engineer, Union Pacific; F. J. Gorman, development engineer, Ansonia Electrical Company; C. O. Ellis, superintendent communications, C.R.I. & P.; C. J. Colombo, general transmission and foreign wire relations engineer, Canadian Pacific; A. M. Crawford, superintendent telegraph and signals, Pennsylvania; and J. W. Brannin, electronic engineer, Southern Pacific.

Exhibitors at the session include:

Automatic Electric Sales Company; Bendix Radio Division of Bendix Aviation Corporation; J. H. Bunnell and Company; Capehart-Farnsworth Corporation; Communication Equipment & Engineering Co.; Cornell-Dubilier Electric Corporation; Electronic Communication Equipment Company; George Evans Corporation; Fansteel Metallurgical Corporation; Federal Telephone & Radio Corp.; Foushee & Heckendorn; Graybar Electric Company; Kellogg Switchboard & Supply Co.; Mathias Klein & Sons; Motorola, Inc.; National Telephone Supply Company; Nestor Engineering Company; Paper Manufacturers Company; Philco Corporation; Radio Engineering Products, Ltd.; Reliable Electric Company; Western Railroad Supply Company; Westinghouse Electric Corporation; and Whitney Blake Company.

J. Geyer, vice-president, construction and maintenance, of the Chesapeake & Ohio, has been elected junior vice-president of the **American Railway Engineering Association** by action of the association's board of direction. Mr. Geyer fills the vacancy created by the recent advancement of T. A. Blair to senior vice-president, which, in turn, was the result of H. S. Loeffler's recent elevation to the presidency upon the retirement of George L. Sitton (see *Railway Age* of July 29, page 51).

The **Transportation Association of America** has elected as members of the policy administration board of its National Cooperative Project Frank C. Rathje, Chicago, president of the T.A.A. and of the Chicago City Bank & Trust Co. (chairman); William H. Day, Boston, Mass., manager of the transportation department of the Boston Chamber of Commerce (deputy chairman); Chauncey H. Hand, Jr., New York, member of the law firm of Dorr, Hammond, Hand & Dawson; Clarence F. Lea, Washington, D. C., director of governmental relations for the T.A.A.; P. V. Moulder, Chicago, executive vice-president of the International Harvester Company; Henry S. Sturgis, New York, vice-president of the First National Bank of New York; K. L. Vore, Los Angeles, Cal., manager of the transportation department of the Los Angeles Chamber of Commerce; and General Brehon B. Somervell, Pittsburgh, Pa., chairman of the Koppers Company. Dr. George P. Baker, professor of transportation of the Harvard University Graduate School of Business Administration, is consultant to the board, which will appraise the results of the project's research on 27 major issues of the transportation problem and submit its findings to the association's directors next spring. The project — which is dealing with economic and legislative issues of the transportation problem to assist Congressional committees on interstate commerce — is composed of eight panels of experts selected from all forms of transportation, users and investors on a nationwide basis, and a legal advisory board of 14 members.

"Indian Paint" — a film produced by the Colorado Fuel & Iron Co. depicting the manufacture and laying of steel rail, highlighted the October 6 meeting of the **Railway Supply Group of the Union League Club of Chicago.**

Claims, and their limitations, was the subject of an address by A. T. Suter, Southern Pacific attorney, before the **San Francisco Traffic Club** on September 20. Mr. Suter called particular attention to the fact that various periods of limitation must be followed strictly to prevent an aspect of discrimination from entering shipper-carrier relations. He also outlined for the club the activities of the Interstate Commerce Commission's Bureau of Inquiry.

A round table discussion on "Development of standard unit load for the carton industry" will highlight the October 10 meeting of the **Midwest Materials Handling Society,** to be held in the Chemistry auditorium, Illinois Institute of Technology, Chicago. Both members of the society and guests are invited to partake in the discussion, which will begin at 7 p.m.

The next meeting of the **Eastern Car Foreman's Association** will be held in room 502, Engineering Societies building, 29 West 39th street, New York, on October 13 at 7:45 p.m. L. L. Adams, asst. to vice-president, traffic, of the United States Steel Corporation, will speak on "Rules for Loading of Freight Cars." The meeting will be preceded by a buffet-supper at the Old Timers Grill, 7 East 40th street, at 6 p.m.

SUPPLY TRADE

Pullman-Standard Creates New Ballaster Division

Formation of the Power Ballaster Products division as a full-fledged operating division of the Pullman-Standard Car Manufacturing Company has been announced by Wallace N. Barker, executive vice-president of Pullman-Standard. The organization of this new division, with its own sales and engineering departments, was accomplished by John A. Curtis, who has been appointed manager of the new division. In his announcement, Mr. Barker said that it was the intention of Pullman-Standard to extend its

John A. Curtis

activities in the railroad track maintenance field. The Power Ballaster Products division, with manufacturing facilities at Hammond, Ind., now has on the market a power ballaster, a power cribber and a ballast cleaner.

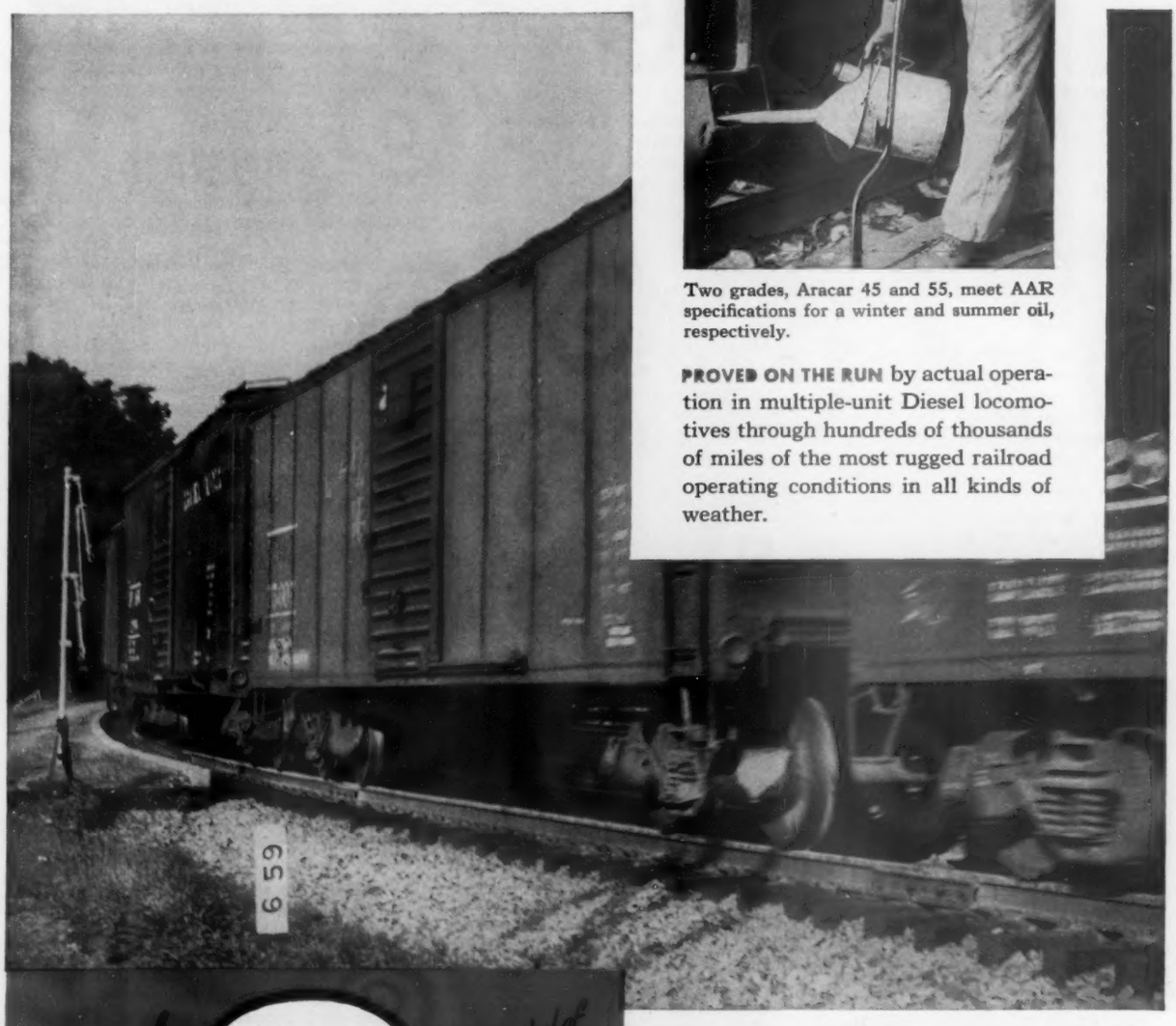
As head of the new division, Mr. Curtis will coordinate expansion of sales, design engineering of new products, and field engineering and service. He was formerly associated with the Capehart-Farnsworth division of the International Telephone & Telegraph Co., as manager of its railroad

Mile after mile

ESSO ARACAR — car oils are providing lasting, dependable lubrication in railroad car journal boxes through a wide range of climatic conditions and the toughest kind of railroading.

Two grades, Aracar 45 and 55, meet AAR specifications for a winter and summer oil, respectively.

PROVED ON THE RUN by actual operation in multiple-unit Diesel locomotives through hundreds of thousands of miles of the most rugged railroad operating conditions in all kinds of weather.



The Sign of QUALITY — ESSO — The Symbol of SERVICE

RAILROAD PRODUCTS

SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Penna., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

ESSO STANDARD OIL COMPANY — Boston, Mass. — New York, N. Y. — Elizabeth, N. J. — Philadelphia, Pa. — Baltimore, Md. — Richmond, Va. — Charleston, W. Va. — Charlotte, N. C. — Columbia, S. C. — Memphis, Tenn. — Little Rock, Ark. — New Orleans, La.

PROVED IN THE LAB... research by a staff of over 2000 scientists and technicians in America's largest petroleum laboratories makes sure that ARACAR oils give proper lubrication in all types of car journals.

PROVED ON THE JOB — Esso Sales Engineers make sure that every Esso Railroad Product is performing up to your satisfaction. Be sure to call on an Esso Sales Engineer any time for help with your fuel and lubricating problems.

equipment division. In that post he was credited with pioneering very high frequency radio equipment for railroads and was instrumental in securing assignment by the Federal Communications Commission of the exclusive communication channels necessary for its expansion.

F. H. Philbrick, founder of the original Power Ballaster Company, which was purchased by Pullman-Standard several years ago, will continue to serve as consultant on improvement of present products and development of new ones.

The board of directors of the **Flannery Bolt Company** has announced a change in the firm's name to **Flannery Manufacturing Company.**

Charles E. Bell has announced dissolution of the partnership of **Bell & Ussery.** Mr. Bell will continue as a traffic and transportation specialist and consultant, with headquarters at suite 519, Continental building, Fifteenth and K streets, N.W., Washington, D. C.

The **E. A. Lundy Company** has been appointed exclusive agent for sale to the New York Central System of the **Electric Service Manufacturing Company's** entire line of transportation equipment.

The Chicago office of the **D. J. Murray Manufacturing Company** is now at 612 North Michigan avenue in the Michigan-Ohio building. **O. J. Malina,** sales manager of the Unit Heater division, is in charge.

Gordon A. Jacobs has been appointed representative in charge of the **Detrex Corporation's** Dallas division, which includes Texas, Louisiana, Oklahoma and Arkansas.

Fred P. Biggs has been appointed president of the Brake Shoe and Castings division of the **American Brake Shoe Company,** and **Stephen S. Conway** has been appointed vice-president in charge of sales of the Brake Shoe and Castings and Southern Wheel divisions. **Ralph L. Robinson** has been made vice-president of the two divisions and **Edward R. Anderson** has been named vice-president of the Brake Shoe and Castings division.

The Cleco division of the **Reed Roller Bit Company** has appointed the **Ensminger Company,** Wilkes-Barre, Pa., as distributors of Cleco products in that area.

Heyl & Patterson, Inc., has announced appointments of **H. G. Dillon** as vice-president, sales, and **B. A. Rose** as vice-president, engineering.

John A. Faller has been promoted to traffic manager of the **Libby-Owens-Ford Glass Company,** to succeed **H. G. Huhn,** resigned.

F. T. Richardson has been appointed director of public relations of the **American Car & Foundry Co.,** to succeed **Arthur Tuckerman,** who is retiring from business to resume free-lance writing. In his new position Mr. Richardson, among other duties, will be responsible for all A.C.F. publications, including Wheels.

Lloyd E. Young has been appointed sales manager of the **Superior Steel & Malleable Castings Co.**

Oscar von Seeger, export representative of the **Caterpillar Tractor Company,** Peoria, Ill., has been appointed to the new post of assistant divisional manager of the export sales department.

New Dallas (Tex.) headquarters for the **Magnaflux Corporation** were opened recently at 2823 Manor way, replacing former headquarters destroyed by an aircraft crash last November.

M. C. Blevins has been appointed assistant western manager of the **Kerite Company,** with headquarters at Chicago. Mr. Blevins was born in St. Joseph, Mo., and educated in grade and high school at Blue Island, Ill., and at the University of Chicago. After his schooling, he was first associated with the Indiana Harbor Belt mechanical department in the Chicago area. He later joined the mechanical department of the Boston & Maine, with headquarters at Concord, N. H., and subsequently went with Lever Brothers Company, in its sales department. He remained there until 1940, when he entered the service of Kerite in its New York office sales department, being transferred to Chicago later the same year. **Ernst Ohnell, Jr.,** has been made manager of power and industrial sales covered by the New York office of Kerite. He will continue as export manager, and **Lee W. Eighmy, Jr.,** has been appointed his assistant.

Dan S. Ellis has resigned as president of the **Lima-Hamilton Corporation** to become executive vice-president of the **Gramm Trailer Company.** Mr. Ellis entered railroad service in 1916 as a clerk in the office of the auditor of the Lehigh & Hudson River. In 1917 he joined the New York Central, working, successively, as clerk in assistant freight agent's office, machine helper, draftsman, checker and calculator, designer and traveling engineer, assistant engineer and lastly, assistant engineer, motive power. In 1929 he became sales manager of the railroad division of the Worthington Pump & Machinery Corp. During 1932-1936 he was engineer, motive power, for the Erie, the Chesapeake & Ohio, the New York, Chicago & St. Louis and the Pere Marquette. In 1936 he was appointed mechanical assistant to vice-president for the three last-named railroads. He was chief mechanical officer at Cleveland, Ohio, from 1936 until April, 1943, when he was elected vice-president in charge of manufacturing of the Lima Locomotive Works, which became Lima-Hamilton after the acquisition, on October 1, 1947, of the assets of the General Machinery Corporation, manufacturer of Hamilton Diesel engines. Mr. Ellis was elected vice-president and a director of Lima-Hamilton when the acquisition was consummated, and president on August 9, 1949.

Stephen T. Early, former U. S. deputy director of defense, whose return to his former positions as vice-president of **Pullman, Inc.,** and of the **Pullman-Standard Car Manufacturing Company** was reported in the *Railway Age* of September 16, page 83, will have headquarters in Washington, D. C.

OBITUARY

A. T. Bremser, chief engineer of Diesel engine equipment, Scintilla Magneto division, Bendix Aviation Corporation, died on September 28.

Leo P. Duggan, district sales manager of the Garlock Packing Company at Philadelphia, Pa., died on September 21 after a short illness. Before Mr. Duggan joined Garlock in 1909 as a railroad sales representative, he had been a storekeeper with the Chesapeake & Ohio.

Albert A. Mattson, manager of the traffic section of the traffic and transportation department of the Koppers Company, died in Pittsburgh, Pa., on September 15.

EQUIPMENT AND SUPPLIES

$8,700,000 Authorized for 1951 Improvements on Erie

The Erie has approved a 1951 improvement program estimated to cost $8,700,000. Principal items in the program, which includes 364 miscellaneous items covering all phases of operation, are the construction in the road's Dunmore, Pa., shops of 100 covered hopper cars costing $760,000; installation of centralized traffic control on the Buffalo division, $500,000; and expansion of the 4-way train radio-telephone system and other communications, estimated to cost $250,000. The largest appropriation, $3,380,000, was earmarked for the maintenance of way department, and the next highest, $2,400,000, for the mechanical department.

Domestic Equipment Orders Reported in September

Domestic orders for 473 Diesel-electric locomotive units, 30,840 freight-train cars and 26 passenger-train cars

Goodall Fabrics Provide Special Fabric Design

for Great Northern's "Red River"

Another crack train for Great Northern . . .
"Red River" streamliner with cars by A.C.F.

60-seat coach featuring the "Wheat Pattern" originated by the design staff of A.C.F. and loomed especially by Goodall to dramatize the Wheat Belt through which the Great Northern's "Red River" travels.

Where durability and luxury are the keynote – Goodall Fabrics are preferred

A special design keyed to your needs is just one of the many advantages of using Goodall Fabrics. Goodall Fabrics are *Blended-for-Performance*—providing a combination of fibers—each of which is selected for special qualities—durability, ease of cleaning, beauty. This explains the superior appearance and serviceability of Goodall Fabrics . . . and their wide use in railway transportation where passenger satisfaction and long-range economy are important.

Goodall-Fabrics, Inc.
Subsidiary of Goodall-Sanford, Inc.
THE FINEST NAME IN FABRICS

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Locomotives

Date	Purchaser	No.	Type	Builder
Sept. 2	A.T. & S.F.	10	1,600-hp. Rd.-Switch.	Fairbanks, Morse
		10	Passenger	Electro-Motive
Sept. 2	Clinchfield	12	1,500-hp. Gen. Purpose	Electro-Motive
Sept. 2	Georgia	4	1,500-hp. Gen. Purpose	Electro-Motive
Sept. 9	P.R.R.	13	660-hp. Switching	American-G.E.
		16	1,000-hp. Switching	American-G.E.
		2	1,000-hp. Rd.-Switch.	American-G.E.
		15	1,600-hp. Rd.-Switch.	American-G.E.
		18	1,600-hp. Freight	American-G.E.
		60	1,600-hp. Rd.-Switch.	Baldwin
		6	800-hp. Switching	Baldwin
		19	1,200-hp. Switching	Baldwin
		9	1,600-hp. Gen. Purpose	Baldwin
		14	2,400-hp. Transfer	Baldwin
		18	2,250-hp. Passenger	Electro-Motive
		14	1,200-hp. Switching	Electro-Motive
		68	1,500-hp. "A" Freight	Electro-Motive
		28	1,500-hp. "B" Freight	Electro-Motive
		26	2,000-hp. Rd.-Switch.	Fairbanks, Morse
		11	2,400-hp. Transfer	Lima-Hamilton
Sept. 23	M.K.-T.	2	2-unit 4,500-hp. Pass.	American-G.E.
		6	1,600-hp. Rd.-Switch.	American-G.E.
		10	1,500-hp. Rd.-Switch.	Electro-Motive
Sept. 23	S.P.	22	1,200-hp. Switching	Baldwin
		10	1,600-hp. Gen. Purpose	Baldwin
		4	2-unit 3,200-hp. Road	Baldwin
		10	660-hp. Switching	American-G.E.
Sept. 23	T.R.R.A. of St. L.	6	1,200-hp. Switching	Lima-Hamilton
		4	1,600-hp. Rd.-Switch.	American-G.E.
Sept. 30	Reading	10	1,600-hp. Road	Baldwin
		10	1,600-hp. Road	American-G.E.

Freight Cars

Sept. 2	B. & O.	1,000	70-ton Gondola	Bethlehem Steel
Sept. 2	C.R.I. & P.	500	Flat	R.R. Shops
		350	50-ton Box	General American
Sept. 2	D.L. & W.	500	70-ton Gondola	Amer. Car & Fdy.
Sept. 2	F.G.E.	1,000	40-ton Refrigerator	Pacific Car & Fdy.
		100	50-ton Refrigerator	Co. Shops
Sept. 2	L.V.	200	70-ton Gondola	Bethlehem Steel
Sept. 2	N.P.	1,000	Box	R.R. Shops
		50	Caboose	R.R. Shops
		100	70-ton Cov. Hopper	R.R. Shops
Sept. 2	P.F.E.	2,100	Refrigerator	Co. Shops
Sept. 2	Reading	500	70-ton Gondola	Bethlehem Steel
Sept. 2	St. L.-S.F.	100	50-ton Flat	Amer. Car & Fdy.
Sept. 2	W.M.	410	70-ton Gondola	Bethlehem Steel
		40	70-ton Flat	R.R. Shops
		100	70-ton Cov. Hopper	Amer. Car & Fdy.
		100	50-ton Box	Greenville Steel Car
		50	50-ton Box	Pressed Steel Car
Sept. 9	Central Vermont	2	50-ton Air Dump	Magor Car
Sept. 9	C. & E.I.	200	Gondola	R.R. Shops
Sept. 16	C. & E.I.	25	Flat	Thrall Car
Sept. 16	M.-K.-T.	500	50-ton Box	Pressed Steel Car
Sept. 16	N.Y.C.	1,000	55-ton Box	Pullman-Standard
Sept. 16	S.P.	1,600	50-ton Box	Pullman-Standard
Sept. 23	B. & O.	1,000	50-ton Box	Amer. Car & Fdy.
		20	50-ton Auto	Amer. Car & Fdy.
Sept. 23	C. & O.	1,000	70-ton Hopper	Amer. Car & Fdy.
Sept. 23	D. & H.	1,000	50-ton Hopper	Bethlehem Steel
Sept. 23	I.C.	1,000	50-ton Box	R.R. Shops
		120	70-ton Cov. Hopper	Amer. Car & Fdy.
Sept. 23	L. & N.	1,000	50-ton Box	Pullman-Standard
Sept. 23	M. St. P. & S. Ste. M.	250	50-ton Box	R.R. Shops
		100	50-ton Hopper	R.R. Shops
Sept. 23	M.-K.-T.	300	70-ton Gondola	Pullman-Standard
Sept. 23	N. & W.	500	50-ton Box	Pullman-Standard
Sept. 23	St. L. & B.E.	50	70-ton Hopper	Amer. Car & Fdy.
Sept. 23	S.P.	900	50-ton Box	Pullman-Standard
		100	70-ton Hopper	Amer. Car & Fdy.
		250	70-ton Cov. Hopper	Amer. Car & Fdy.
		100	70-ton Gondola	Amer. Car & Fdy.
		1,000	50-ton Gondola	R.R. Shops
		1,000	50-ton Box	R.R. Shops
		50	Caboose	R.R. Shops
Sept. 30	C. & N.W.	2,000	50-ton Box	Pullman-Standard
Sept. 30	C.I. & L.	100	Box	General American
Sept. 30	G.N.	3	95-ton Flat	R.R. Shops
		250	70-ton Gondola	Amer. Car & Fdy.
Sept. 30	L. & C.	20	50-ton Box	Pullman-Standard
Sept. 30	P.R.R.	1,200	70-ton Gondola	Amer. Car & Fdy.
		800	70-ton Gondola	Pullman-Standard
		500	70-ton Gondola	General American
		250	70-ton Gondola	R.R. Shops
		1,500	50-ton Box	Pressed Steel Car
		500	50-ton Box	R.R. Shops
		250	70-ton Flat	R.R. Shops
Sept. 30	Southern	2,000	50-ton Box	Pullman-Standard
Sept. 30	S.P. & S.	200	70-ton Gondola	Amer. Car & Fdy.

Passenger Cars

Sept. 2	I.C.	8*	Sleeping	Pullman-Standard
Sept. 9	G.N.	4	Bag.-Express	R.R. Shops
Sept. 16	A.C.L.	6*	Coach	Budd
		4*	Sleeping	Pullman-Standard
Sept. 23	N.Y.S. & W.	4	RDC-1	Budd

*Originally ordered by the Chesapeake & Ohio.

were reported in *Railway Age* in September. Estimated cost of the locomotives is $73,600,000, of the freight-train cars $154,200,000, and of the passenger-train cars $2,720,000. An accompanying table lists the orders in detail.

During the first nine months of 1950, *Railway Age* has reported domestic orders for 2,020 Diesel-electric locomotive units, and 15 steam and 12 electric locomotives, costing an estimated total of $298,036,000; 99,770 freight-train cars, costing approximately $500,986,600; and 42 passenger-train cars, costing about $4,844,000.

FREIGHT CARS

The **Akron, Canton & Youngstown** has ordered 50 70-ton covered hopper cars from the Greenville Steel Car Company.

The **Canadian National** has ordered 5,000 50-ton box cars costing about $33,000,000. The Canadian Car & Foundry Co. will build 2,000 of the cars and the National Steel Car Company and the Eastern Car Company will construct 1,500 each. Delivery of the cars is expected to begin early next year.

The **Chicago, Burlington & Quincy** has announced plans to acquire 2,200 freight cars costing $13,000,000. The equipment will include 1,000 box cars, 400 flat cars, 200 hopper cars, 250 gondola cars and 350 refrigerator cars.

The **Colorado & Southern** plans to acquire 250 box cars.

The **Fort Worth & Denver City** has been authorized to acquire 250 box cars.

LOCOMOTIVES

The **Baltimore & Ohio** will lease 90 Diesel-electric locomotive units from the Equitable Life Assurance Society. The units, to cost about $14,850,000, will be built by the Electro-Motive Division of General Motors Corporation. Included are 86 1,500-hp. freight and four 2,250-hp. passenger units. The passenger units will be delivered within the next few weeks and deliveries of the freight units are scheduled to start next month and be completed by June, 1951.

The **Canadian National** has ordered eight 1,600-hp. Diesel-electric locomotive road units (four "A" and four "B" units) from the Montreal Locomotive Works, at a cost of about $1,500,000. Deliveries are scheduled for early next year.

The **Louisville & Nashville** has announced plans to purchase an additional 26 Diesel-electric locomotive units. Four will be 2,250-hp. passenger units and 22 will be 1,500-hp. dual-purpose units intended primarily for passenger service. When delivered (sometime after May 1, 1951) the new locomotives are expected to displace some of the road's heavier steam power into freight service, and permit retirement of some 46 older steam passenger units. The new locomotives are expected to cost $4.6 million.

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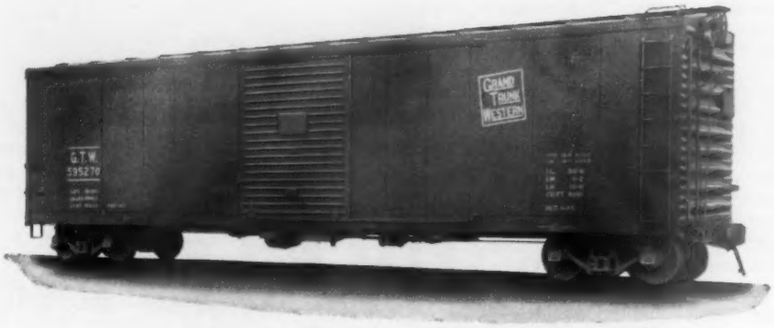

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SIGNALING

The **Chicago, Burlington & Quincy** has received authority from its board of directors to proceed with cab signal installations between Chicago and Mt. Pleasant, Iowa, 233 mi., and between Aurora, Ill., and Prescott, Wis., 368 mi.

The General Railway Signal Company has received orders for 10 sets of train control equipment. Two sets of continuous inductive equipment were ordered by the American Locomotive Company for installation on Diesel switching locomotives for the **Lehigh Valley.** Eight sets of intermittent inductive equipment were ordered by the Electro-Motive Division of General Motors Corporation for installation on Diesel locomotives, also for the L. V.

The **Union Pacific** has ordered from the Union Switch & Signal Co. material to install wayside signaling arranged for continuous control of cab signaling, including wayside signals, on 84 mi. of single track between Portland, Ore., and The Dalles. The order includes coded track circuit control equipment, style H-2 dwarf and high signals, relays, rectifiers, transformers, switch and motor car indicators, and housings. Field installation will be handled by railroad forces.

IRON & STEEL

The **Chicago, Burlington & Quincy** has been authorized to purchase 50,000 tons of new steel rail and fittings at an estimated cost of $5.1 million.

The **Colorado & Southern** has received authority to purchase 4,000 tons of steel rail and fittings.

The **Fort Worth & Denver City** has been authorized to purchase 1,600 tons of steel rail and fittings.

The **Louisville & Nashville** will shortly place orders for 64,000 tons of 132-lb. steel rail and necessary fastenings, at a total cost of approximately $7.5 million.

CONSTRUCTION

N. of M. Plans to Relocate Lines in Mexico City

The government of Mexico is reported to have approved plans for a vast railroad relocation project involving all but one of the freight yards in the area of Mexico City, D. F. The project is also reported to include a complete rebuilding of the city's Buena Vista passenger station. It is said that the entire project will cost in the neighborhood of $45 million, and that much of this money will be spent for materials to be obtained outside of Mexico.

The plans are said to provide for abandonment of present freight yards at Nonoalco — in the heart of the city — and transference of all activity to Tlalnepantla, a rapidly growing industrial district about five miles from Nonoalco on the northern edge of the city. Because of its high real estate value, to be further raised by construction of a 10-lane highway, the land occupied by Nonoalco yards will be sold by the government-owned National Railways to defray a considerable part of the cost of the relocation project. Higher taxes on this property will provide additional governmental income to finance the work.

Atchison, Topeka & Santa Fe.—To cover construction of an outbound and inbound freighthouse adjacent to Third st. near Mount Vernon ave., San Bernardino, Cal., a contract has been awarded to J. N. Robinson and W. M. Wilson of San Bernardino.

Baltimore & Ohio.—This road has awarded contracts to the Ross & White Co., Chicago, for design and construction of six new Diesel sanding plants for installation at New Castle Junction, Pa., Cowen, W. Va., and Keyser, Newark, Ohio, and Willard, and Cumberland, Md.; to the Arundel Corporation, Baltimore, Md., for bridge 4-A, Sisson street, Baltimore; to the Steiner Construction Company, Baltimore, for a gear storage building at piers 3, 6, 7, 8 and 9, Locust Point, Baltimore; to the Blumenthal Kahn Electric Company, Baltimore, for electrical work, and to the Lacchi Construction Company, Baltimore, for a substructure and service building, both on the new Curtis Bay, Baltimore, import ore pier; and to Roberts & Schaefer, Chicago, for cinder handling facilities at Brunswick, Md.

Southern.—This road has awarded contracts at indicated estimated costs to the Moss-Thornton Company, Leed, Ala., for line and grade revision, eliminating three steel viaducts and one timber trestle near Eckerty, Ind. ($225,000), and to the W. Horace Williams Company, New Orleans, La., for a new car shop building in the Press Street yard, New Orleans. The new shop is part of an overall project to extend and revise the yard.

The following projects, all of which will be undertaken by the road's own forces, have been authorized at the indicated probable costs: Extending passing track at Boyd, Tenn. ($30,570); constructing industrial lead track at Pomona, N. C. ($20,000); installing mechanical crossovers at freight depot, Birmingham, Ala. ($32,400); converting roundhouse for record storage use ($23,000), and consolidating mechanical and maintenance-of-way shops ($23,600), both at Alexandria, Va.; converting old Diesel shop into Diesel paint shop, Chattanooga, Tenn. ($34,200); remodeling passenger station interior, Tuscaloosa, Ala. ($38,203); filling trestle and diverting stream, near Irondale, Ala. ($23,000); replacing trestle near Marion Junction, Ala. ($25,700); filling two steel bridges and diverting stream, Clifton, Va. ($26,780); replacing overhead bridge at Banks street, Salisbury, N. C. ($24,300); and reconstructing bridge over Ararat river, Mt. Airy, N. C. ($27,300).

FINANCIAL

Gulf, Mobile & Ohio.—*Trackage Rights Into Birmingham, Ala.*—The I.C.C. has authorized the general chairmen of two operating brotherhoods on the Southern to intervene in connection with this road's proposal to acquire a new route into Birmingham, Ala. (See *Railway Age* of May 13, page 68.) The petitions, filed on behalf of the Brotherhood of Locomotive Engineers and the Brotherhood of Locomotive Firemen & Enginemen, indicated the two unions will oppose the application. The Southern has already been authorized to intervene in the case "for the protection of its interests."

Lehigh Valley.—*Merger of National Storage Company.*—Division 4 of the I.C.C. has authorized a merger into this road of its wholly owned subsidiary, National Storage Company, cancelling all of the latter's stock and indebtedness, and dissolving that corporation. Property of the storage company includes approximately 9.2 mi. of railroad at Jersey City, N. J., which the L.V. will continue to operate. These tracks are used in conducting operations at one of the road's tidewater piers in the New York City harbor area.

South Carolina State Ports Authority.—*Acquisition.*—The I.C.C. has authorized this South Carolina state agency to acquire the railroad properties at Charleston, S. C., which were formerly owned by the Port Utilities Commission, an agency of the city. The railroad properties have been operated by the state agency since March 15, 1947.

New Securities

Application has been filed with the I.C.C. by:

CHESAPEAKE & OHIO.—To assume liability for $7,950,000 of equipment trust certificates to finance in part 1,900 new freight cars, costing an estimated $10,045,681.50. The equipment was listed as follows:

	Description and Builder	Estimated Unit Cost
550	50-ton box cars (Pullman-Standard Car Manufacturing Company)	$5,164.72
550	70-ton all-steel hopper cars (Bethlehem Steel Company)	5,491.85
800	70-ton all-steel hopper cars (American Car & Foundry Company)	5,230.71

The certificates, to be dated November 15 would mature in 30 semiannual installments of $265,000 each, beginning May 15, 1951. They would be sold on the basis of competitive bids.

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- Party Line Station Selectors
- Perforator—Transmitter Units
- Perforators (5-Unit) (6-Unit)
- Perforator Tables
- Portable Test Sets
- Printer Silencing Consoles
- Printer Tables
- Rectifiers
- Regenerative Repeaters
- Reperforators (Typing) (5-Unit)
- Reperforators (Non-typing) (5-Unit) (6-Unit)
- Reperforator Tables
- Reperforator—Transmitter Combination Units
- Reperforator Transmitter Tables
- Receiving Apparatus Tables
- Sequence Selectors
- Stock Quotation Tickers
- Stroboscopic Signal Distortion Test Sets
- Tape Perforators
- Tape Printers
- Tape Winders
- Transmitter Distributors (5-Unit) (6-Unit)
- Transmitting Apparatus Tables
- Transmitting Receiving Tables
- Utility Cabinets

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CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—To assume liability for $5,430,000 of series MM equipment trust certificates, to finance in part 52 Diesel-electric locomotive units costing an estimated $7,242,067.47, as follows:

	Description and Builder	Estimated Unit Cost
6	4,500-hp. freight locomotives, each consisting of 2 lead units and a booster unit (Electro-Motive Division, General Motors Corporation)	$492,644.47
3	1,500-hp. freight units (Electro-Motive)	169,633.49
2	4,500-hp. passenger locomotives, each consisting of 2 lead units and a booster unit (Electro-Motive)	518,092.59
1	1,200-hp. road-switching unit (Baldwin Locomotive Works)	108,825.00
2	3,200-hp. transfer locomotives, each consisting of a lead unit and a booster unit (Baldwin)	333,000.00
5	1,200-hp. switching units (Baldwin)	98,061.00
10	1 000-hp. switching units (American Locomotive Company)	98,570.00
5	1,200-hp. switching units (Fairbanks, Morse & Co.)	98,057.00

The certi. cates, to be dated November 1, would mature in 30 semiannual installments of $181,000 each, beginning May 1, 1951. They would be sold on competitive bids.

Security Price Averages

	Oct. 3	Last week	Last year
Average price of 20 representative railway stocks	48.75	47.43	38.02
Average price of 20 representative railway bonds	95.06	95.73	86.61

Dividends Declared

Atlantic Coast Line.—5% preferred, $2.50, semiannual, payable November 10 to holders of record October 25.

Bessemer & Lake Erie.—Preferred, 75¢, semiannual, payable October 1 to holders of record September 15.

Illinois Terminal.—Common, 20¢, quarterly, payable November 1 to holders of record October 10.

Minneapolis & St. Louis.—Common, 25¢, payable October 19 to holders of record October 13.

Norfolk & Western.—4% adjustment preferred, 25¢, quarterly, payable November 10 to holders of record October 18.

Reading.—Common, 50¢, quarterly, payable November 9 to holders of record October 11.

Savannah & Atlanta.—5% preferred, $1.25, quarterly, payable October 2 to holders of record September 21.

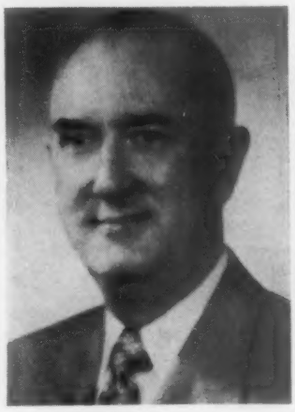
Vermont & Massachusetts.—$3, semiannual, payable October 7 to holders of record September 29.

RAILWAY OFFICERS

EXECUTIVE

C. J. Oldenbuttel, assistant to general superintendent of motive power and equipment of the ATLANTIC COAST LINE, has been appointed assistant to president, with headquarters as before at Wilmington, N. C.

Clyde P. Downing, who has been promoted to assistant to vice-president in charge of personnel of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC, with headquarters at Chicago, as reported in the *Railway Age* of July 29, was born on January 2, 1899, in Independence, Iowa, where he graduated from high school in 1916. The following year he attended Cedar Rapids (Iowa) Business College. Mr. Downing's railroad career began in June, 1916, with the Chicago, Rock Island & Pacific as an extra gang timekeeper. After he left business college he was employed by the Rock Island as a bill clerk at Cedar Rapids. In July, 1920, he went with the Milwaukee as a road freight brakeman at Sioux City, Iowa, becoming a clerical employee in the superintendent's office at that point in 1921. Later he held various clerical positions in the same office until his transfer to Chicago in



Clyde P. Downing

1926 as chief clerk to the assistant to chief operating officer. In May, 1938, Mr. Downing was advanced to staff assistant to vice-president, in which capacity he was serving at the time of his latest promotion.

FINANCIAL, LEGAL & ACCOUNTING

G. A. Rush, auditor of passenger accounts of the GULF, MOBILE & OHIO, has been appointed auditor of passenger and station accounts, with headquarters as before at Mobile, Ala.

J. H. Andrews, assistant freight claim agent of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Seattle, Wash., has been promoted to freight claim agent at Chicago, succeeding **M. B. Mortensen,** who has retired after nearly 50 years of service. **H. W. Kirch,** assistant freight claim agent, succeeds Mr. Andrews, and is in turn succeeded by **J. J. Liewald,** chief clerk in the freight claim department.

H. H. Brown, auditor of freight receipts of the GREAT NORTHERN at St. Paul, Minn., has retired, and is succeeded by **A. V. Bell,** assistant auditor of freight receipts at that point. **W. J. Donahue,** chief clerk to the auditor of freight receipts, and **L. J. Kittley,** chief statistical clerk, have been appointed assistant auditors of freight receipts. Mr. Brown was born in Rochester, Minn., on July 21, 1884, and attended Hamline University, St. Paul. He entered railroad service with the G. N. in August, 1907, and in 1911 was advanced to head of the statistical bureau at St. Paul, which city has been his headquarters throughout his career. In 1920 he was promoted to head of the local bureau of the freight receipts division, and 10 years later was appointed supervisor of the tabulating bureau. In January, 1941, Mr. Brown was made assistant auditor of freight receipts, becoming auditor of freight receipts in May, 1945.

Mr. Bell started his career with the G. N. in 1905, and subsequently held various positions in the accounting department. He served as clerk in the office of the auditor of freight receipts prior to his appointment in May, 1945, as assistant auditor of freight receipts.

Herbert S. Anderson, general solicitor of the PULLMAN COMPANY, has been promoted to general counsel, with headquarters as before at Chicago, succeeding **W. J. Butler,** who has resigned. **D. S. Dugan,** assistant general solicitor at Chicago, succeeds Mr. Anderson, and is in turn replaced by **R. M. Wingquist,** attorney in Pullman's law department.

F. A. Rutherford, assistant tax commissioner of the CANADIAN PACIFIC, has been appointed tax commissioner, with headquarters as before at Montreal, Que., succeeding **W. R. Jeffrey,** who has retired under the pension rules of the company. Mr. Rutherford joined the C.P. freight department in 1922 at Calgary, Alta. He left the company in 1927 and returned in 1938 to work in the statistical department. From then until 1946, when he was made general tax accountant, he worked in the general auditor's office and the vice-president and comptroller's office, in addition to being assistant munitions accountant at Angus shops during 1942. Mr. Rutherford was appointed assistant tax commissioner on January 1, 1950.

Mr. Jeffrey entered the service of the C.P. in 1911 as a claims clerk and investigator at Montreal, transferring to the tax department in 1914 as assessment and tax clerk. He later became assistant tax agent and in 1939 was appointed tax agent. Mr. Jeffrey became tax commissioner in 1946.

OPERATING

A. F. McSweeney, superintendent of car service of the PENNSYLVANIA, has been appointed acting chief of freight transportation, with headquarters as before at Philadelphia, Pa., in place of **A. F. McIntyre,** who has been recalled to active Army duty as a brigadier general in the Transportation Corps. **A. L. Stewart,** superintendent of passenger transportation—special duty, has been appointed acting superintendent of car service at Philadelphia, assuming Mr. McSweeney's former duties.

As reported in the *Railway Age* of September 2, **Kenneth E. Miller** has been appointed superintendent of the Saratoga-Champlain division of the DELAWARE & HUDSON at Albany, N. Y. Mr. Miller was born on October 9, 1909, at Rensselaer, N. Y., and attended high school at Troy, N. Y., and

Albany Business College. He entered railroad service on July 8, 1926, with the D.&H., serving in various clerical positions until 1930. After six months leave of absence with the International Paper Company as traffic representative at Albany, Mr. Miller returned to the D.&H. in the office of the superintendent of transportation in December, 1930. He was assigned to the As-

Kenneth E. Miller

sociation of American Railroads for special service during 1935. He was appointed supervisor of l.c.l. freight service for the D.&H. in September, 1938; supervisor of car distribution in September, 1944; chief clerk to general superintendent of transportation in September, 1946; and assistant to general superintendent of transportation in February, 1948. Mr. Miller held the latter position until his recent promotion.

TRAFFIC

M. H. Gill has been appointed general agent of the CHICAGO & EASTERN ILLINOIS at Kansas City, Mo., succeeding **F. E. Rush,** who has retired, as reported by *Railway Age* on September 23. **Henry J. Dentzman,** director of forestry and agricultural development, at St. Louis, Mo., has retired after nearly 36 years of continuous service.

W. L. Lloyd, assistant engineer of the PENNSYLVANIA, has been promoted to fuel engineer in the traffic department at Philadelphia, Pa., succeeding the late **A. O. Geertz,** whose death was reported in the *Railway Age* of September 30.

William E. Hines, assistant to the general freight traffic manager of the ATCHISON, TOPEKA & SANTA FE, at Chicago, has retired after 48 years service in the freight traffic department. Succeeding Mr. Hines is **John P. McElree,** assistant to freight traffic manager of the GULF, COLORADO & SANTA FE at Galveston, Tex.

Elmo Adams, freight traffic agent of the NASHVILLE, CHATTANOOGA & ST. LOUIS at Kansas City, Mo., has

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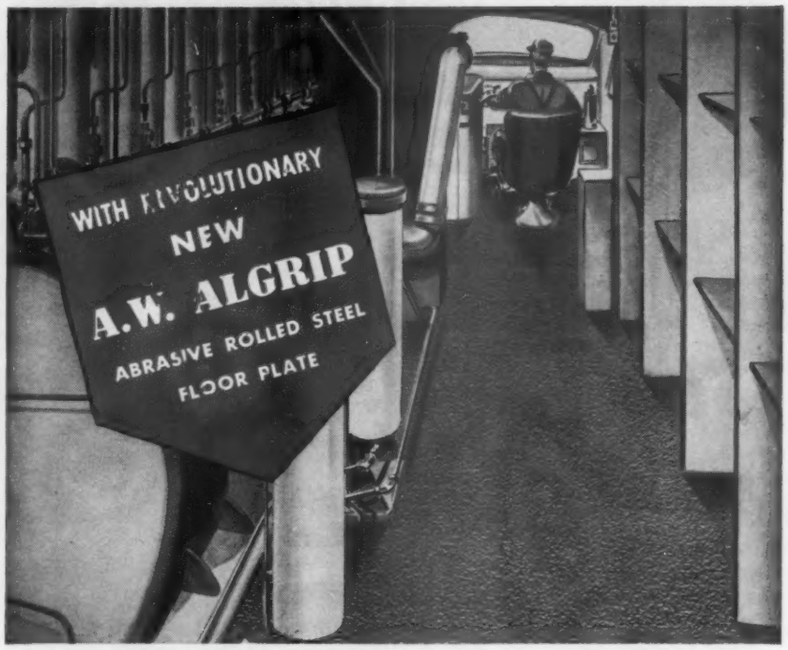


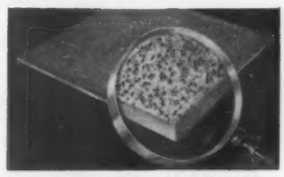
Non-Slip Even on Steep Inclines

Now, for the first time, Railroads can protect both passengers and employees from dangerous slipping accidents with A.W. ALGRIP ABRASIVE Rolled Steel Floor Plate.

A.W. ALGRIP is made by rolling abrasive grain, the same type used in grinding wheels, as an integral part of the upper portion of steel floor plate. Wet or dry, A.W. ALGRIP prevents slipping, even on steep inclines. It retains its non-slip qualities for a lifetime because as the surface wears new abrasive particles are constantly exposed.

A.W. ALGRIP is ideal for installation on freight and passenger platforms, ramps, walkways, bridges, catwalks, signal towers and on rolling stock. A.W. ALGRIP, unlike other abrasive flooring, is light in weight but high in strength. It stands severe abuse without cracking and is not damaged by heat, fire or heavy traffic.

Write or use Coupon for Complete information and 8-page descriptive booklet today.



Even distribution of Abrasive Particles shown by magnifying glass.

Guards against slipping on railroad car platforms and trapdoors.

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cut maintenance COSTS caused by RUST

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Stops Rust!

Applying Rust-Oleum to car parts by dipping—a practical, economical method for railroad use. Rust-Oleum can also be brushed on or sprayed.

● Costly rust—a needless waste—is preventable. It can be stopped easily, positively, economically! Railroads from coast to coast find RUST-OLEUM the perfect answer to their most difficult rust problems. An *exclusive-type* coating, RUST-OLEUM was formulated to combat the most destructive rust conditions. It provides *long-lasting* protection for rolling stock, bridges, tanks, metal buildings, signal equipment and other railroad properties.

RUST-OLEUM can be applied over metal that is already rusted . . . and it's equally effective on new metal. *Preparation time is cut to a minimum.* No sandblasting or chemical cleaners are necessary. On rusted surfaces merely wire-brush quickly to remove rust scale, paint blisters, etc. Substantial maintenance savings are easily made and RUST-OLEUM *protects longer.*

Interior of late-type express car in which Rust-Oleum gives protection in enclosed areas where condensation due to temperature changes breeds rust.

- Easy to use — Rust-Oleum saves time and labor—by far the biggest costs in any maintenance program.
- Rust-Oleum, formulated to stop rust under the most dangerous, rust-causing conditions, lengthens the intervals between maintenance applications.
- Available, also, in small containers for economical distribution, small jobs and field use.

To lick your rust problems, check the advantages of RUST-OLEUM for new equipment, for re-building jobs for maintenance—in the shop and out on the right-of-way. Tell us your rust problems and write for full information and recommended applications.

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been appointed general agent at that point.

C. J. Mundee, assistant general freight agent of the SEABOARD AIR LINE at Orlando, Fla., has been transferred to Miami, Fla. **C. M. Bonner,** division freight agent at Jacksonville, Fla., has been appointed assistant general freight and passenger agent at Charlotte, N. C., succeeding **J. F. Rivers,** who has been transferred to Orlando, Fla. **J. L. Hutson, Jr.,** has been appointed division freight agent at Jacksonville, succeeding Mr. Bonner.

MECHANICAL

E. H. Schoedinger has been appointed master mechanic of the Buena Vista shops of the FLORIDA EAST COAST at Miami, Fla., succeeding **C. W. Davis,** who has retired at his own request after 25 years of service.

R. B. Dulaney, staff assistant of the ATLANTIC COAST LINE, has been appointed assistant to general superintendent motive power and equipment, with headquarters as before at Wilmington, N. C.

William C. Cox, power plant engineer, Pere Marquette District, of the CHESAPEAKE & OHIO, has been promoted to electrical engineer, with headquarters as before at Grand Rapids, Mich., succeeding **Frank E. Starkweather,** who has retired. Mr. Cox's former position has been abolished. Mr. Starkweather was born on August 5, 1885, in Saginaw, Mich. After graduation from high school in 1903, he became employed in the engineering department of the Bartlett Illuminating & Power Co. The following year he joined the General Railway Signal Company's construction department, leaving that company in 1905 to become chief electrician for the Pere Marquette Coal Company. From 1906 to 1907 he served in the power and switchboard department of the Michigan State Telephone Company, and subsequently joined the Pere Marquette (now P.M. district, C. & O.) as electrician in the signal department. In 1908 Mr. Starkweather became interlocking maintainer, and in 1911 was advanced to electrical foreman, being appointed chief electrician in 1913. He was further advanced in 1916 to assistant signal engineer, and in 1923 was promoted to electrical engineer.

Frank Williams, chief mechanical engineer of the CANADIAN NATIONAL at Montreal, Que., has retired after 32 years of Canadian railway service. Mr. Williams was born in England, where he began his railway career with the London & South Western. He went to Canada in 1911 to join the Montreal Locomotive Works. In 1918 he began service with the Canadian Government railways (now part of the C.N. system) as a draftsman in the mechanical department at Moncton,

N. B., becoming mechanical designer there in 1920 and mechanical engineer in 1923. In 1929 Mr. Williams was transferred to Montreal as mechanical engineer, shop methods, and in 1933 was placed in charge of shop methods for the entire system. He was appointed chief mechanical engineer in 1943.

Earl C. Cone, assistant to superintendent locomotive maintenance of the BOSTON & MAINE at Boston, Mass., has been appointed master mechanic of the New Hampshire division at Concord, N. H., succeeding **William H. Prindall,** who has retired after 51 years of service with the B.&M., the last 25 years as master mechanic at Concord.

PURCHASES & STORES

N. V. Oldenbuttel, general storekeeper of the ATLANTIC COAST LINE, and **L. F. Duvall,** supervisor of reclamation, have been appointed assistants to general purchasing agent, both with headquarters as before at Wilmington, N. C. **C. I. Cavenaugh,** assistant general storekeeper, has been appointed general storekeeper, also with headquarters as before at Wilmington. **W. B. Creasy,** acting chief clerk in the purchasing department, has been appointed office assistant to general purchasing agent. **A. H. Harris, Jr.,** storekeeper, has been appointed assistant to general storekeeper.

L. H. Warren has been appointed general storekeeper of the ST. LOUIS SOUTHWESTERN, with headquarters at Pine Bluff, Ark., succeeding **F. C. Warren,** whose retirement was reported in the September 23 *Railway Age*.

SPECIAL

Kenneth E. Crank, assistant safety supervisor of the SOUTHERN, has been promoted to safety supervisor, with headquarters remaining at Washington, D. C.

As reported in the *Railway Age* of August 12, the following changes have taken place in the public relations department of the ILLINOIS CENTRAL: **Charles E. Kane,** executive assistant, public relations, has retired because of ill health after nearly 30 years service with the I. C.; **Clifford G. Massoth,** editor of the Illinois Central Magazine, has been appointed to head the road's public relations staff in addition to his present duties, and **Arthur C. Carlson,** assistant in public relations, has been made manager of public relations.

Mr. Kane was born on September 21, 1893, at Maryville, Mo., where he attended high school. Following graduation from the University of Missouri in 1915 he became an instructor in the university's School of Journalism. He left that position in 1917 to serve in World War I

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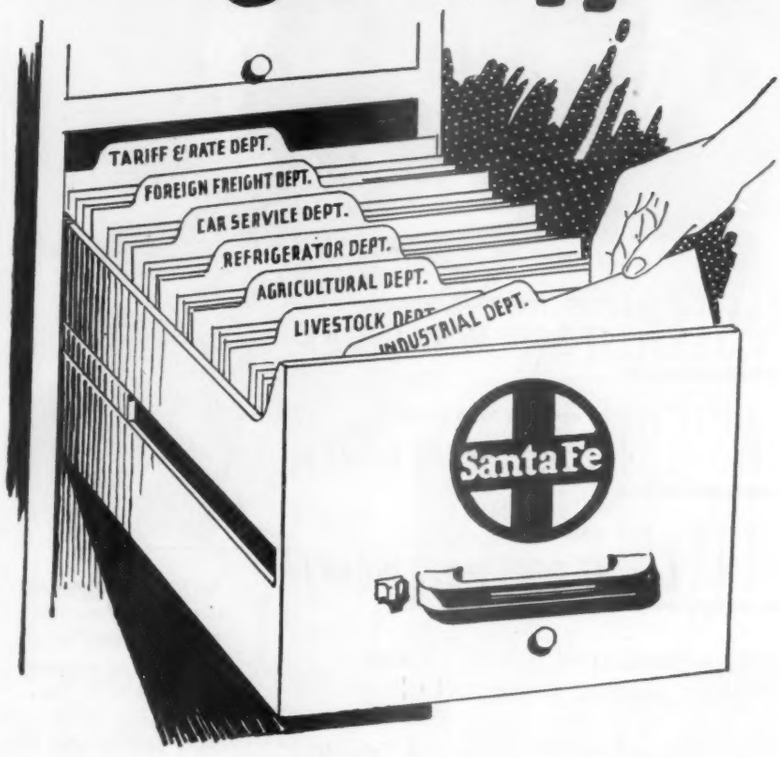

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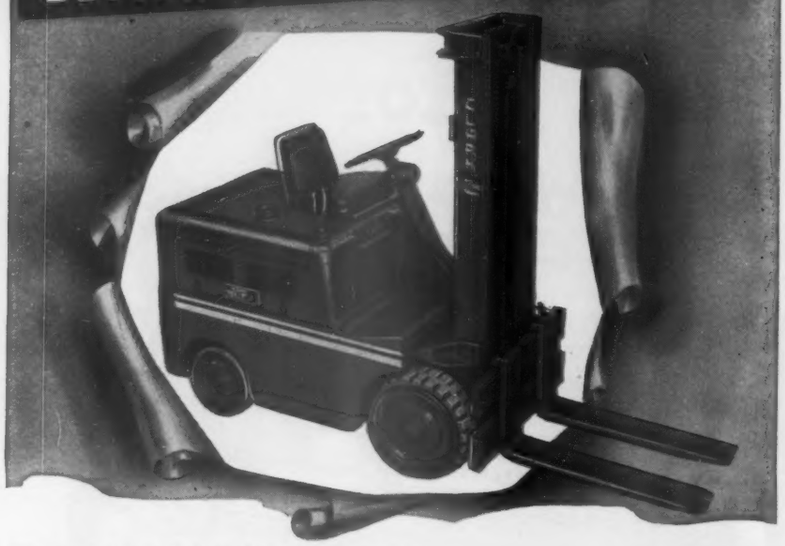

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with the American Field Service and the U. S. Army Ambulance Service. He spent 21 months in France, attached throughout to the French Army, and was awarded the Croix de Guerre. After the war he returned to the University of Missouri and served as alumni secretary and editor of the Missouri Alumnus until 1921, when he joined the I. C. as assistant editor of the Illinois Central Magazine. He became editor of that magazine in 1925, and in 1942 was promoted to executive assistant.

Charles E. Kane

Mr. Massoth was born in Davenport, Iowa, on February 17, 1911, and attended Crane Technical High School, Chicago, and Crane Junior College. He received his bachelor of philosophy degree in 1935 from the University of Chicago, and in January, 1936, entered the service of the I. C. as traffic agent at Chicago. He later held the same position successively at Sioux City, Iowa, and Omaha, Neb., being made an analyst in the traffic department at Chicago in January, 1943. From March, 1943, to July, 1945, he served as assistant editor of the I. C. Magazine, and subsequently became staff assistant, public relations. Mr. Massoth was promoted to editor of the magazine in February, 1948. He is currently serving as president of the Amer-

Clifford G. Massoth

ican Railway Magazine Editors' Association.

Mr. Carlson studied transportation at Northwestern University. He started his railroad career as an office boy on the Chicago & Western Indiana in June, 1936. Later he was transferred to the accounting department of the

Arthur C. Carlson

Belt of Chicago. He joined the I. C. in 1946 as secretary in the public relations office, and was advanced to assistant in public relations in February, 1949.

OBITUARY

C. D. Moss, whose intended retirement on September 30 as general manager of the CLINCHFIELD, at Erwin, Tenn., was reported in the *Railway Age* of that date, died on September 28 in Erwin.

John Purcell, retired mechanical assistant to the vice-president of the ATCHISON, TOPEKA & SANTA FE and past chairman of the Mechanical Division of the Association of American Railroads, died at Los Angeles, Cal., on September 29.

J. W. Joslin, general agent of the NASHVILLE, CHATTANOOGA & ST. LOUIS at Kansas City, Mo., died on September 21 in that city, after more than 30 years of service in the N. C. & St. L. traffic department.

Richard C. Koster, director of public relations of the FEDERATION FOR RAILWAY PROGRESS at Washington, D. C., died of cancer on September 29, at the age of 31. Mr. Koster was born at Greenbank, N. J., and was graduated from Temple University School of Journalism in 1941. He was director of publicity at radio station WCAU in Philadelphia for the next year. During World War II he was publicity manager for the Army War Show and later correspondent for the Pacific edition of Stars and Stripes. At the war's end he became public relations director for radio station WFIL-TV in Philadelphia. Mr. Koster joined the F.R.P. in 1949.

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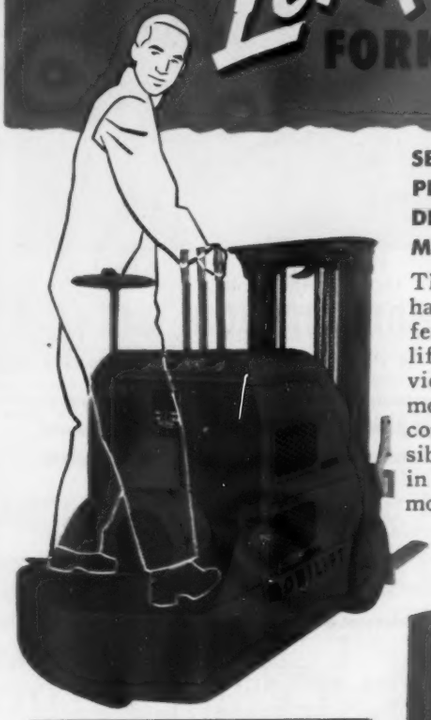

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Lev-R-Matic Controls... secret of speed, ease of operation and maneuverability... PUSH or PULL a single lever to go forward or back... a multiple-disc clutch smoothly transmits positive power instantly.

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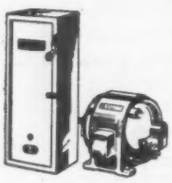

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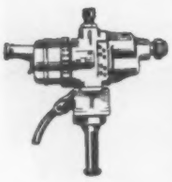

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PAMPHLET

Bulletin No. 80 of the Railway & Locomotive Historical Society, Inc. 98 pages, illustrations. Published by the R. & L. H. S., Baker Library, Harvard Business School, Boston, Mass. Price, to members, $1; to non-members, $2.

Leading off this number of the R.&L.H.S. Bulletin is a 36-page article on the California Southern, complete with photographs, map and time card. Other articles concern the Central Military Tract railroad; locomotives of the Panama Railroad; the railroads of McKean County; and the Bennington & Glastenbury.

PERIODICAL ARTICLES

Can the Railroads Climb Out of Their Rut?, by Lawrence M. Hughes. Sales Management, August 15, 1950, *page* 37 *et seq., and September* 1, 1950, *page* 56 *et seq. Published by Sales Management, Inc.,* 386 *Fourth ave., New York* 16. *Single copies, each issue,* 35 *cents.*

This two-part article is a somewhat superficial discussion of railroad problems and of what some outstanding railroad men think can be done by the railroads themselves to solve those problems. Some railroad men may feel Mr. Hughes has not leaned over backwards to be sympathetic, especially in pooh-poohing such governmentally fostered difficulties as subsidized competition, high labor costs and inadequate mail pay. But most railroaders will probably agree with his assertions that railroads as a whole have failed to keep pace with their air and highway rivals in promotion and sale of their services. (See also *Railway Age* of September 23, page 21.)

GM Brings Diesel-Electric Service to its Customers. Business Week, September 2, 1950, pp. 40-42. Published by McGraw-Hill Publishing Company, 330 W. 42nd st., New York 18. Single copies, 25 cents.

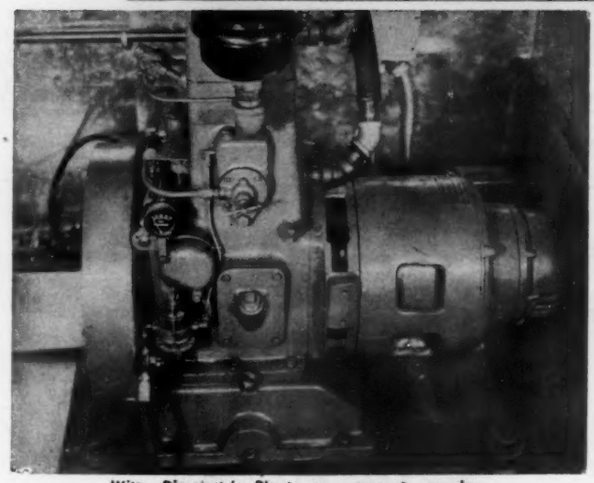
Many railroads can't do all Diesel-electric locomotive repairs themselves, so General Motors is setting up rebuilding shops near them.

TRADE PUBLICATION

The Facts About AAR Solid Journal Bearings. 20 pages, illustrations. Published by Magnus Metal Corporation (subsidiary of National Lead Company), 111 Broadway, New York 6, or 80 E. Jackson blvd., Chicago 4. Free to railroad mechanical and operating officers and other interested persons.

This new booklet simplifies technical data in support of the standard A.A.R. babbitt-lined journal bearing for railroad rolling stock. Metallurgical, mechanical and lubrication aspects of the standard bearing are included, and significantly related to economic factors involved in modern train operation. The text, specially prepared for easy reading, is amply illustrated with drawings, charts and photographs.

Speed up Freight Movements with Diesel-Powered Radio Communications



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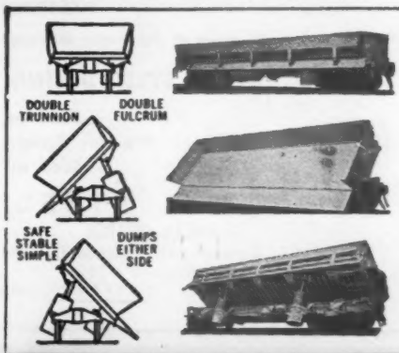

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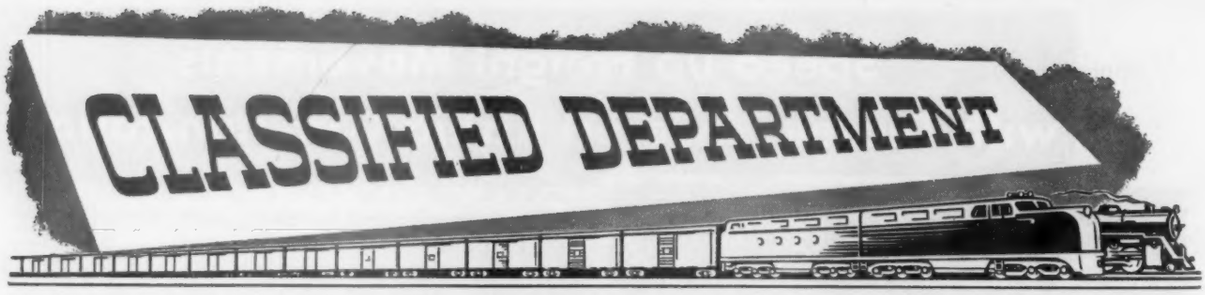

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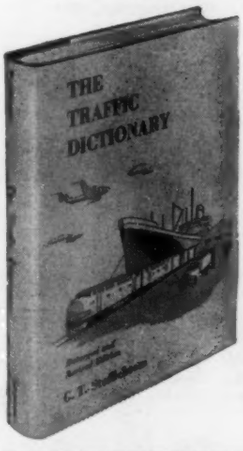

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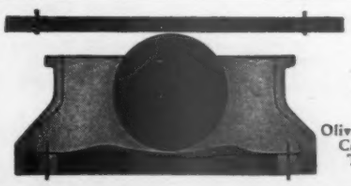

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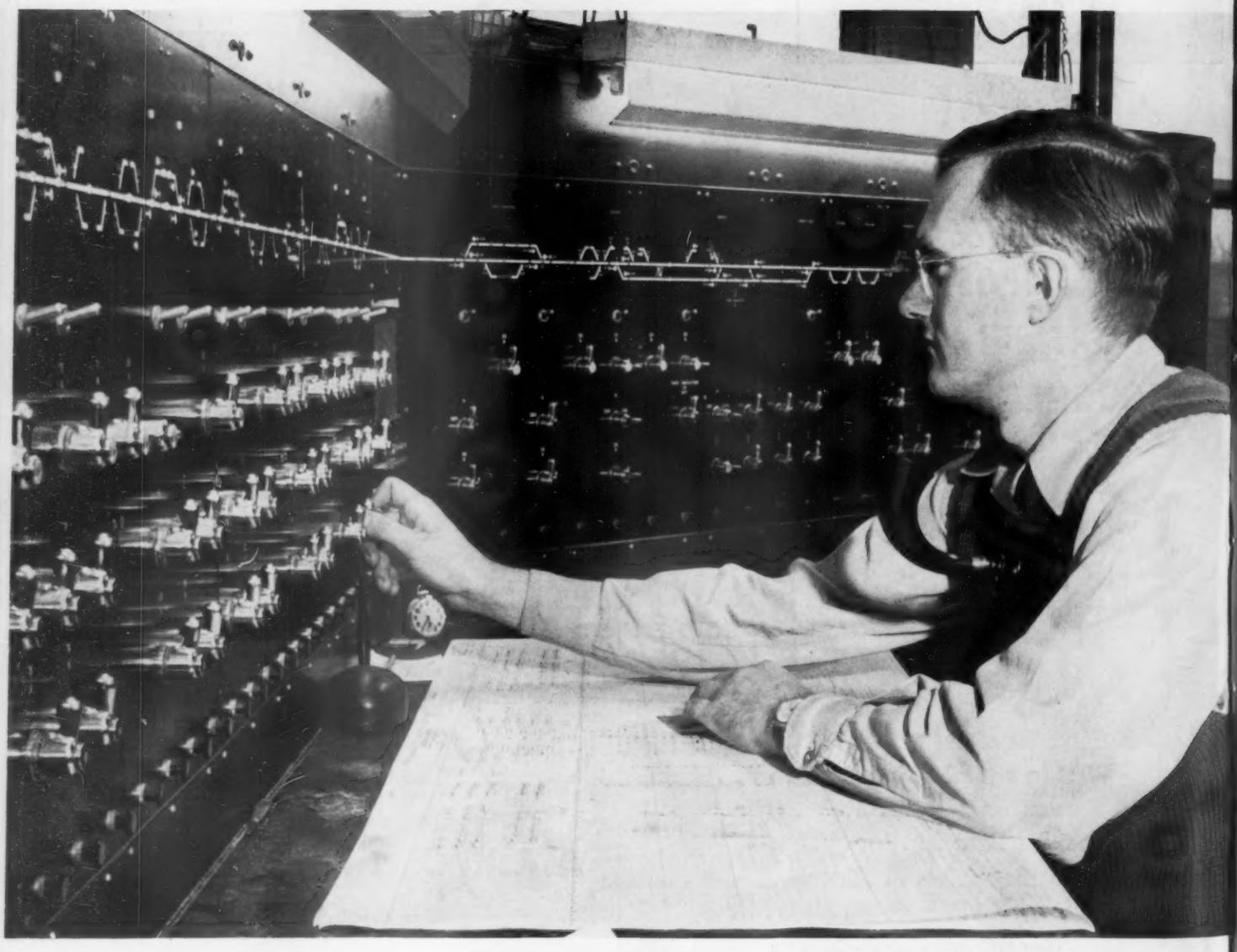

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